GLOBAL TENDER ENQUIRY DOCUMENT

FOR PURCHASE OF
MEDICAL EQUIPMENT

UNDER PMSSY SCHEME

FOR

GOVT OF PUNJAB

DEPARTMENT OF MEDICAL EDUCATION AND RESEARCH

HLL/PCD/PMSSY/PUNJAB/02/12-13

BY

HLL Lifecare Limited

(A GOVERNMENT OF INDIA ENTERPRISE)
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SECTION I

NOTICE INVITING TENDERS (NIT)

(Global Tender)

HLL Lifecare Limited

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FOR

GOVT OF PUNJAB

DEPARTMENT OF MEDICAL EDUCATION AND RESEARCH

Tender Enquiry No.: HLL/PCD/PMSSY/PUNJAB/02/12-13 **Dated 04.10.2012**

NOTICE INVITING TENDERS (NIT)

1. Procurement & Consultancy Services Division of HLL Lifecare Limited, for and on behalf of Govt. of Punjab, Department of Medical Education and Research invites sealed tenders, from eligible and qualified tenderers for supply of following medical equipments for Government Medical College, Amritsar, Punjab under PMSSY:

Sch No	Item Name	Total Qty	EMD
1	ECG Machine- 12 Channels	1	3000
2	Ventilator- High End (I.C.U)	23	1012000
3	OT Table	1	40000
4	Operation Theatre Light with camera	1	50000
5	Electro-surgical Unit	1	14000
6	Anesthesia Workstation	1	30000
7	Caesarean set	4	40000
8	Delivery Bed	2	20000
9	ABG	2	20000
10	Electrolyte Analyzer	1	10000
11	Blood Mixer and Collector	1	6000
12	Video Thoracoscope	1	50000
13	PFT Machine (advanced)	2	48000
14	Sleep Lab (advanced)	1	20000
15	IABP (Intra Aortic Balloon Pump) - High End	1	36000
16	Sternum Saw (electrically Operated)	2	16000
17	ACT	1	5000
18	General Instruments set for ENT Surgery	5 Set	50000
19	Cochlear Implants surgical unit for surgery on profoundly deaf patients	1	4000
20	Electronystagmographic machine	1	12000
21	ENT examination units with motorised patients chairs	1	10000

22	Eye bank Specular Microscope (Eye Bank kerato-analyzer)	1	6000
23	Automated Electrophoresis System with scanner /Densitometer	2	20000
24	Deep freezer(-20 deg C)	2	12000
25	Cytocentrifuge	1	12000
26	HPLC System	1	50000
27	Thin Layer Chromatography	1	4000
28	Plethysmometer digital ugo basile	1	10000
29	Harmonic Scalpel	2	92000
30	Basic Plastic/ Rhynoplasty /Cleft lip & Palate surgery instrument set	1	12000
31	Stress Test System with TMT	1	36000
32	General Surgery Laparoscopic unit	1	56000
33	PC Based polygraph	1	1200
34	LEEP SYSTEM with Smoke Evacuator & integrated cart	1	20000
35	Cryo Surgical System	2	30000
36	Laparoscopic Surgery Set with High Definition Camera	1	56000
37	Clinical Endothelial Micrcoscope	1	10000
38	CHART PROJECTION FOR PEDIATRIC PATIENTS	1	3000
39	Synaptophore	1	6000
40	KERATOMETER	1	17000
41	Whole Body combined UV therapy unit	1	8000
42	Hand foot UV phototherapy device	1	4000
43	Multi Application Laser Plateform	1	13000
44	Surgery Instruments	1	10000
45	O.T Instruments - (Urology)	1	20000
46	Endo Cystoscopy & TURP Set TURP / Cystoscope	1	10000
47	PNCL SET	1	12000
48	FIBER-URETERO-RENOSCOPE	1	16000
49	Gel DOCUMENTATION System (12-BIT)	2	88000
50	Multi Channel Pipettes	2	10000
51	Real Time PCR system	2	100000
52	SINGLE CHANNEL PIPETTES - ADJUSTABLE	1	4000
53	Gel Electrophoresis workstation	2	48000
54	Analytical balance	4	24000
55	Spectrophotometer	1	24000
56	Bio-Chemisrty Auto Analyser 16 channel	2	112000
57	Mobile Examination Light based on LED technology (wall mounted - 10) to Examine Patient and One No. Floor mounted for OT.	wall mounted - 10 One No. Floor mounted - Total 11 Nos.	55000

58	Cell Counter 5 Part (Automated Haemotology Analyser)	3	168000
59	MTP Suction for Obst & Gyne Department	2	18000
60	Refrigerated Centrifuge	3	60000
61	Water Purification system	2	20000
62	Deep Freezer -80 Deg	1	13000
63	Dead Body Chamber Six bodies	1	9000
64	PC based spirometer for the measurement of lung volumes & Capacities and diffusion	1	14000
65	Student Physiograph with 3 Channel with standard accessories	1	7000
66	Stress Test System with TMT	1	10000
67	EMG/EP system 4 channels: for recording of the evoked responses & EMG with accessories	1	10000
68	Autoclave (Vertical)	1	7000
69	Automated Slide Stainers	1	10000
70	Automatic Microtome	1	10000
71	Automatic Tissue Processor	1	15000
72	Dry Heat Water Bath (Heat Block)	1	6000
73	Paraffin Tissue Embedding Centre	1	9000
74	Flow cytometer analyzer	1	40000
75	Automated Knife Sharpener	1	4000
76	Table top Micro-centrifuge	1	8000
77	Semen Analyzer	1	10000
78	Tissue Floatation Bath	1	8000
79	Master Cycler Gradient	1	40000
80	Foetal Monitor with central Station	18+2	136800
81	Cardiotocography	1	10000
82	Hyterescope, Resectoscope	1	40000
83	Conventional surgical operating microscope	1	10000
84	Operating Microscope with Video attachment	1	50000
85	Operating microscope complete unit for surgery and teaching	1	60000
86	Functional endoscopic sinus surgery for advanced surgery of para- nasal sinus disorders	1	60000
87	OCT Machine	1	60000

2. Tender No.: HLL/PCD/PMSSY/PUNJAB/02/12-13

Sl. No.	Description	Schedule
i.	The Tender document can be viewed/ downloaded from the Tender Wizard free of cost from 04.10.2012 to 06.11.2012 (from 1000 Hrs to 1600 Hrs) i.e. one day prior to last date of submission of the Application.	4th October 2012 to 6th November 2012
ii.	Place of sale of Tender Enquiry Documents	Through e-mode
iii.	Cost of the Tender Enquiry Document	Rs. 5000/-
iv.	Pre Tender Meeting Date & Time	11.10.2012
v.	Pre Tender Meeting Venue	HLL Lifecare Ltd , B-14 A Sector-62, NOIDA 201307
vi.	Closing date & time for receipt of Tender	7th November 2012, 14.00 hrs
vii.	Time and date of opening of Techno – Commercial tenders	7th November 2012, 15.00 hrs through e-mode online

3. Interested tenderers may obtain further information about this requirement from the above office. Tender Enquiry Documents may be purchased on payment of non-refundable fee of Rs 5000/- per set in the form of account payee Demand Draft/Pay Order/Cashier's Cheque/Banker's Cheque, drawn on a scheduled bank in India, in favour of **"HLL Lifecare Limited"** payable at New Delhi**.** The original documents should be submitted before 14:00 hours Indian Standard Time on the tender due date i.e. on 07.11.2012, at the below mentioned address in the manner and form as detailed in the tender.

HLL Lifecare Limited
B-14 A Sector-62
NOIDA-201307

To participate in the submission against the tender, it is mandatory for the Applicants to get themselves registered with the Tender Wizard and to have user ID & password which has to be obtained by submitting an annual registration charges of **Rs. 2,247/-** (Inclusive of all taxes) to M/s ITI Ltd. The online payment facility for the submission of Registration fee and Tender Processing Fee, which is payable to E- Tender service provider i.e. M/s ITI Ltd., has been enabled on E-Tender portal http://www.tenderwizard.com/ . The Applicant can now pay Registration Charges and Tender Processing Fee through E-Payment gateway of Punjab National Bank using Credit Card/ Debit Card- Master Card and Visa Card only. Henceforth there will be no physical submission of Demand Draft for the same. Validity of online registration is one year. For registration and other queries related to processing of e – tender e-mail: punjabeprocure@etenderwiczard.com.

5. Tenderer may also download the tender enquiry documents from the web site www.punjabmedicaleducation.org, www.gmc.edu.in, http://etender.punjabgovt.gov.in or www.lifecarehll.com.

6. All prospective tenderers may attend the Pre Tender meeting. The venue, date and time indicated in the Para 2 above.

7. Tenderers shall ensure that they shall submit the original documents specified in the tender (Like Demand Draft for tender fee in favour of HLL lifecare Ltd, EMD etc together with their respective enclosures and seal it in an envelope and mark the envelope as "Tender Number mentioning schedule No.". The said envelope shall clearly bear the name of the Project and name and address of the bidder. In addition, the Tender due date should be indicated on the right hand corner of the envelope. The original documents should be submitted before 14:00 hours Indian Standard Time on the Tender due date i.e. on 07.11.2012, at the below mentioned address in the manner and form as detailed in the Tender.

HLL Lifecare Ltd
B-14 A Sector -62
NOIDA-201307

8. The Tender Enquiry Documents are not transferable.

Head (P&CD)
HLL Lifecare Limited,
Procurement and Consultancy Division
B-14 A, Sector-62, Noida-201 307
Uttar Pradesh

SECTION - II
GENERAL INSTRUCTIONS TO TENDERERS (GIT)
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SECTION – II
GENERAL INSTRUCTIONS TO TENDERERS (GIT)

A. PREAMBLE

1. Definitions and Abbreviations

1.1 The following definitions and abbreviations, which have been used in these documents shall have the meanings as indicated below:

1.2. Definitions:

(i) "Purchaser" means the organization purchasing goods and services as incorporated in the Tender Enquiry document.
(ii) "Tender" means Bids / Quotation / Tender received from a Firm / Tenderer / Bidder.
(iii) "Tenderer" means Bidder/ the Individual or Firm submitting Bids / Quotation / Tender
(iii) "Supplier" means the individual or the firm supplying the goods and services as incorporated in the contract.
(iv) "Goods" means the articles, material, commodities, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, medical equipment, industrial plant etc. which the supplier is required to supply to the purchaser under the contract.
(v) "Services" means services allied and incidental to the supply of goods, such as transportation, installation, commissioning, provision of technical assistance, training, after sales service, maintenance service and other such obligations of the supplier covered under the contract.
(vi) "Earnest Money Deposit" (EMD) means Bid Security/ monetary or financial guarantee to be furnished by a tenderer along with its tender.
(vii) "Contract" means the written agreement entered into between the purchaser and/or consignee and the supplier, together with all the documents mentioned therein and including all attachments, annexure etc. therein.
(viii) "Performance Security" means monetary or financial guarantee to be furnished by the successful tenderer for due performance of the contract placed on it. Performance Security is also known as Security Deposit.
(ix) "Consignee" means the Hospital/Institute/Medical College/ person to whom the goods are required to be delivered as specified in the Contract. If the goods are required to be delivered to a person as an interim consignee for the purpose of despatch to another person as provided in the Contract then that "another" person is the consignee, also known as ultimate consignee.
(x) "Specification" means the document/standard that prescribes the requirement with which goods or service has to conform.
(xi) "Inspection" means activities such as measuring, examining, testing, gauging one or more characteristics of the product or service and comparing the same with the specified requirement to determine conformity.
(xii) "Day" means calendar day.

1.3 Abbreviations:

(i) "TE Document" means Tender Enquiry Document

(ii) "NIT" means Notice Inviting Tenders.
(iii) "GIT" means General Instructions to Tenderers
(iv) "SIT" means Special Instructions to Tenderers
(v) "GCC" means General Conditions of Contract
(vi) "SCC" means Special Conditions of Contract
(vii) "DGS&D" means Directorate General of Supplies and Disposals
(viii) "NSIC" means National Small Industries Corporation
(ix) "PSU" means Public Sector Undertaking
(x) "CPSU" means Central Public Sector Undertaking
(xi) "LSI" means Large Scale Industry
(xii) "SSI" means Small Scale Industry
(xiii) "LC" means Letter of Credit
(xiv) "DP" means Delivery Period
(xv) "BG" means Bank Guarantee
(xvi) "ED" means Excise Duty
(xvii) "CD" means Custom Duty
(xviii) "VAT" means Value Added Tax
(xix) "CENVAT" means Central Value Added Tax
(xx) "CST" means Central Sales Tax
(xxi) "RR" means Railway Receipt
(xxii) "BL" means Bill of Lading
(xxiii) "FOB" means Free on Board
(xxiv) "FCA" means Free Carrier
(xxv) "FOR" means Free On Rail
(xxvi) "CIF" means Cost, Insurance and Freight
(xxvii) "CIP (Destinations)" means Carriage and Insurance Paid up to named port of destination. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.
(xxviii) "DDP" means Delivery Duty Paid named place of destination (consignee site)
(xxix) "INCOTERMS" means International Commercial Terms as on the date of Tender Opening
(xxx) "MOH&FW" means Ministry of Health & Family Welfare, Government of India
(xxxi) "DHMR" means Department of Health and Medical Research
(xxxii) "CMC" means Comprehensive maintenance Contract (labour, spare and preventive maintenance)
(xxxiii) "RT" means Re-Tender.
(xxxiv) "DMER"- Directorate Medical Education Research

2. Introduction

2.1 The Purchaser has issued these TE documents for purchase of goods and related services as mentioned in Section – VI – "List of Requirements", which also indicates, *interalia,* the required delivery schedule, terms and place of delivery.

2.2 This section (Section II - "General Instruction Tenderers") provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted by the purchaser for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract.

2.3 The tenderers shall also read the Special Instructions to Tenderers (SIT) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIT and the SIT, the provisions contained in the SIT shall prevail over those in the GIT.

2.4 Before formulating the tender and submitting the same to the purchaser, the tenderer should read and examine all the terms, conditions, instructions, checklist etc. contained in the TE documents. Failure to provide and/or comply with the required information, instructions etc. incorporated in these TE documents may result in rejection of its tender.

3. Availability of Funds

3.1 Expenditure to be incurred for the proposed purchase will be met from the funds available with the purchaser/consignee.

4. Language of Tender

4.1 The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, shall be written in the English language, unless otherwise specified in the Tender Enquiry. However, the language of any printed literature furnished by the tenderer in connection with its tender may be written in any other language provided the same is accompanied by an English translation and, for purposes of interpretation of the tender, the English translation shall prevail**.**

4.2 The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, may also be written in the Hindi language, provided that the same are accompanied by English translation, in which case, for purpose of interpretation of the tender etc, the English translations shall prevail.

5. Eligible Tenderers

5.1 This invitation for tenders is open to all suppliers who fulfil the eligibility criteria specified in these documents.

6. Eligible Goods and Services

6.1 All goods and related services to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term “origin” used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied.

7. Tendering Expense

7.1 The tenderer shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and for subsequent processing the same. The purchaser will, in no case be responsible or liable for any such cost, expenditure etc regardless of the conduct or outcome of the tendering process.

B. TENDER ENQUIRY DOCUMENTS

8. Content of Tender Enquiry Documents

8.1 In addition to Section I – “Notice inviting Tender” (NIT), the TE documents include:

Section II – General Instructions to Tenderers (GIT)
Section III – Special Instructions to Tenderers (SIT)
Section IV – General Conditions of Contract (GCC)
Section V – Special Conditions of Contract (SCC)
Section VI – List of Requirements
Section VII – Technical Specifications
Section VIII – Quality Control Requirements
Section IX – Qualification Criteria
Section X – Tender Form
Section XI – Price Schedules
Section XII – Questionnaire
Section XIII – Bank Guarantee Form for EMD
Section XIV – Manufacturer's Authorisation Form
Section XV – Bank Guarantee Form for Performance Security/CMC Security
Section XVI – Contract Forms A & B
Section XVII – Proforma of Consignee Receipt Certificate
Section XVIII – Proforma of Final Acceptance Certificate by the consignee
Section XIX –Instructions from Ministry of Shipping/ Surface Transport (Annexure 1 & 2)
Section XX – Check List for the Tenderers
Section XXI – Consignee List

8.2 The relevant details of the required goods and services, the terms, conditions and procedure for tendering, tender evaluation, placement of contract, the applicable contract terms and, also, the standard formats to be used for this purpose are incorporated in the above-mentioned documents. The interested tenderers are expected to examine all such details etc to proceed further.

9. Amendments to TE documents

9.1 At any time prior to the deadline for submission of tenders, the purchaser may, for any reason deemed fit by it, modify the TE documents by issuing suitable amendment(s) to it.

9.2 Such an amendment will be notified in writing by registered/speed post or by fax/telex/e-mail, followed by copy of the same by registered post to all prospective tenderers, which have received the TE documents and will be binding on them.

9.3 In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, the purchaser may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.

10. Clarification of TE documents

10.1 A tenderer requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser in writing. The purchaser will respond in writing to such request provided the same is received by the purchaser not later than fifteen days (unless otherwise specified in the SIT) prior to the prescribed date of submission of tender.

C. PREPARATION OF TENDERS

11. Documents Comprising the Tender . Tender has to be submitted online through e-mode . Hard copies submitted subsequently which have not been uploaded through e-mode will not be entertained.

11.1 The **Two Tender System**, i.e. "Techno – Commercial Tender" and "Price Tender" prepared by the tenderer shall comprise the following:

A) <u>Techno – Commercial Tender (Un priced Tender)</u>

i) Earnest money furnished in accordance with GIT clause 19.1 alternatively, documentary evidence as per GIT clause 19.2 for claiming exemption from payment of earnest money.
ii) Tender Form as per Section X (without indicating any prices).
iii) Documentary evidence, as necessary in terms of clauses 5 and 17 establishing that the tenderer is eligible to submit the tender and, also, qualified to perform the contract if its tender is accepted.
iv) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorisation Form.
v) Power of Attorney in favour of signatory of TE documents and signatory of Manufacturer's Authorisation Form.
vi) Documents and relevant details to establish in accordance with GIT clause 18 that the goods and the allied services to be supplied by the tenderer conform to the requirement of the TE documents.
vii) Performance Statement as per section IX along with relevant copies of orders and end users' satisfaction certificate.
viii) Price Schedule(s) as per Section XI filled up with all the details including Make, Model etc. of the goods offered with prices blank (without indicating any prices).
ix) Certificate of Incorporation in the country of origin.
x) Checklist as per Section XX.

B) <u>Price Tender:</u>

The information given at clause no. 11.1 A) ii) & viii) above should be reproduced with the prices indicated.

N.B.

1. It is the responsibility of tenderer to go through the TE document to ensure furnishing all required documents in addition to above, if any.

11.2 The authorized signatory of the tenderer must sign the tender duly stamped at appropriate places and initial all the remaining pages of the tender before uploading.

11.3 A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.

11.4 Tender sent by fax/telex/cable other than e-mode shall be ignored.

12. Tender currencies

12.1 The tenderer supplying indigenous goods or already imported goods shall quote only in Indian Rupees.

12.2 For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Yen. As regards price(s) for allied services, if any required with the goods, the same shall be quoted in Indian Rupees only if such services are to be performed /undertaken in India. Commission for Indian Agent, if any and if payable shall be indicated in the space provided for in the price schedule and will be payable in Indian Rupees only.

12.3 Tenders, where prices are quoted in any other way shall be treated as non -responsive and rejected.

13 Tender Prices

13.1 The Tenderer shall indicate on the Price Schedule provided under Section XI **(as per the format uploaded in the price tender)** all the specified components of prices shown therein including the unit prices and total tender prices of the goods and services it proposes to supply against the requirement. All the columns shown in the price schedule should be filled up as required. If any column does not apply to a tenderer, same should be clarified as "NA" **(put a -)** by the tenderer.

13.2 If there is more than one schedule in the List of Requirements, the tenderer has the option to submit its quotation for any one or more schedules and, also, to offer special discount for combined schedules. However, while quoting for a schedule, the tenderer shall quote for the complete requirement of goods and services as specified in that particular schedule.

13.3 The quoted prices for goods offered from within India and that for goods offered from abroad are to be indicated separately in the applicable Price Schedules attached under Section XI.

13.4 While filling up the columns of the Price Schedule, the following aspects should be noted for compliance:

13.4.1 For domestic goods or goods of foreign origin located within India, the prices in the corresponding price schedule shall be entered separately in the following manner:

a) the price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like sales tax, CST VAT, CENVAT, Custom Duty, Excise Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc;

b) any sales or other taxes and any duties including excise duty, which will be payable on the goods in India if the contract is awarded;

c) charges towards Packing & Forwarding, Inland Transportation, Insurance (local transportation and storage) would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery, Loading/Unloading and other local costs incidental to delivery of the goods to their final destination as specified in the List of Requirements and Price Schedule;

d) the price of Incidental Services, as mentioned in List of Requirements and Price Schedule;

e) the prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and

f) the price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.4.2 For goods offered from abroad, the prices in the corresponding price schedule shall be entered separately in the following manner:

a) The price of goods quoted FOB/FCA port of shipment, as indicated in the List of Requirements and Price Schedule;

b) Deleted

c) the price of goods quoted CIP (name port of destination) in India as indicated in the List of Requirements, Price Schedule and Consignee List;

d) Deleted

e) the charges for Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3

months beyond date of delivery. Other local costs and Incidental costs, as specified in the List of Requirements and Price Schedule;

f) the charges for Incidental Services, as in the List of Requirements and Price Schedule;
g) the prices of Turnkey (if any), as mentioned in List of Requirements, Technical Specification and Price Schedule; and
h) the price of annual CMC, as mentioned in List of Requirements, Technical Specification and Price Schedule.

13.5 Additional information and instruction on Duties and Taxes:

13.5.1 If the Tenderer desires to ask for excise duty, sales tax/ VAT, Service Tax, Works Contract Tax etc. to be paid extra, the same must be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

13.5.2 Excise Duty:

a) If reimbursement of excise duty is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the duty applicable. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of excise duty will be entertained after the opening of tenders.
b) If a Tenderer chooses to quote a price inclusive of excise duty and also desires to be reimbursed for variation, if any, in the excise duty during the time of supply, the tenderer must clearly mention the same and also indicate the rate and quantum of excise duty included in its price. Failure to indicate all such details in clear terms may result in rejection of that tender.
c) Subject to sub clauses 13.5.2 (a) & (b) above, any change in excise duty upward/downward as a result of any statutory variation in excise duty taking place within contract terms shall be allowed to the extent of actual quantum of excise duty paid by the supplier. In case of downward revision in excise duty, the actual quantum of reduction of excise duty shall be reimbursed to the purchaser by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

13.5.3 Sales Tax:

If a tenderer asks for sales tax/ VAT, Service Tax and Works Contract Tax to be paid extra, the rate and nature of sales tax applicable should be shown separately. The sales tax / VAT, Service Tax and Works Contract Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax / VAT, Service Tax and Works Contract Tax and is payable as per the terms of the contract. If any refund of Tax is received at a later date, the Supplier must return the amount forth-with to the purchaser.

13.5.4 Octroi Duty and Local Duties & Taxes:

Normally, goods to be supplied to government departments against government contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. However, on some occasions, the local bodies (like town body, municipal body etc.) as per their regulations allow such exemptions only on production of certificate to this effect from the concerned government department. Keeping this in view, the supplier shall

ensure that the stores to be supplied by the supplier against the contract placed by the purchaser are exempted from levy of any such duty or tax and, wherever necessary, obtain the exemption certificate from the purchaser.
However, if a local body still insists upon payment of such local duties and taxes, the same should be paid by the supplier to the local body to avoid delay in supplies and possible demurrage charges and obtain a receipt for the same. The supplier should forward the receipt obtained for such payment to the purchaser to enable the purchaser reimburse the supplier and take other necessary action in the matter.

13.5.5 Customs Duty:

The Purchaser will pay the Customs duty wherever applicable.

13.6 For transportation of imported goods offered from abroad, relevant instructions as incorporated under GCC Clause 10 shall be followed.

13.7 For insurance of goods to be supplied, relevant instructions as provided under GCC Clause 11 shall be followed.

13.8 Unless otherwise specifically indicated in this TE document, the terms FCA, FOB, FAS, CIF, CIP, DDP etc. for imported goods offered from abroad, shall be governed by the rules & regulations prescribed in the current edition of INCOTERMS, published by the International Chamber of Commerce, Paris

13.9 The need for indication of all such price components by the tenderers, as required in this clause (viz., GIT clause 13) is for the purpose of comparison of the tenders by the purchaser and will no way restrict the purchaser's right to award the contract on the selected tenderer on any of the terms offered.

14. Indian Agent

14.1 If a foreign tenderer has engaged an agent in India in connection with its tender, the foreign tenderer, in addition to indicating Indian agent's commission, if any, in a manner described under GIT sub clause 12.2 above, shall also furnish the following information:

a) The complete name and address of the Indian Agent and its permanent income tax account number as allotted by the Indian Income Tax authority.
b) The details of the services to be rendered by the agent for the subject requirement.
c) Details of Service outlets in India, nearest to the consignee(s), to render services during Warranty and CMC period.

15. Firm Price

15.1 Unless otherwise specified in the SIT, prices quoted by the tenderer shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

15.2 However, as regards taxes and duties, if any, chargeable on the goods and payable, the conditions stipulated in GIT clause 13 will apply.

16. Alternative Tenders

16.1 Alternative Tenders are not permitted.

16.2 However the Tenderers can quote alternate models meeting the tender specifications of same manufacturer with single EMD.

17 Documents Establishing Tenderer's Eligibility and Qualifications

17.1 Pursuant to GIT clause 11, the tenderer shall furnish, as part of its tender, relevant details and documents establishing its eligibility to quote and its qualifications to perform the contract if its tender is accepted.

17.2 The documentary evidence needed to establish the tenderer's qualifications shall fulfil the following requirements:

a) in case the tenderer offers to supply goods, which are manufactured by some other firm, the tenderer has been duly authorised by the goods manufacturer to quote for and supply the goods to the purchaser. The tenderer shall submit the manufacturer's authorization letter to this effect as per the standard form provided under Section XIV in this document.

b) the tenderer has the required financial, technical and production capability necessary to perform the contract and, further, it meets the qualification criteria incorporated in the Section IX in these documents.

c) in case the tenderer is not doing business in India, it is duly represented by an agent stationed in India fully equipped and able to carry out the required contractual functions and duties of the supplier including after sale service, maintenance & repair etc. of the goods in question, stocking of spare parts and fast moving components and other obligations, if any, specified in the conditions of contract and/or technical specifications.

d) in case the tenderer is an Indian agent/authorized representative quoting on behalf of a foreign manufacturer for the **restricted item**, the Indian agent/authorized representative is already enlisted under the Compulsory Enlistment Scheme of Ministry of Finance, Govt. of India, operated through Directorate General of Supplies & Disposals (DGS&D), New Delhi.

18. Documents establishing Good's Conformity to TE document.

18.1 The tenderer shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully conform to the goods and services specified by the purchaser in the TE documents. For this purpose the tenderer shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the purchaser in the TE documents to establish technical responsiveness of the goods and services offered in its tender (As per the format uploaded in the e- tender).

18.2 In case there is any variation and/or deviation between the goods & services prescribed by the purchaser and that offered by the tenderer, the tenderer shall list out the same in a chart form without ambiguity and provide the same along with its tender .

18.3 If a tenderer furnishes wrong and/or misguiding data, statement(s) etc. about technical acceptability of the goods and services offered by it, its tender will be liable to be ignored and rejected in addition to other remedies available to the purchaser in this regard.

19. Earnest Money Deposit (EMD)

19.1 Pursuant to GIT clauses 8.1 and 11.1(d) the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is

required to protect the purchaser against the risk of the tenderer's unwarranted conduct as amplified under sub-clause 19.7 below.

19.2 The tenderers who are currently registered and, also, will continue to remain registered during the tender validity period with Directorate General of Supplies & Disposals or with National Small Industries Corporation, New Delhi for the specific goods as per tender enquiry specification shall be eligible for exemption from EMD. Vague stipulations in the Registration Certificate such as "to customers' specification" etc. will not be acceptable for exemption from furnishing of earnest money. In case the tenderer falls in these categories, it should furnish copy of its valid registration details (with DGS&D or NSIC, as the case may be).

19.3 The earnest money shall be denominated in Indian Rupees or equivalent currencies as per GIT clause 12.2. The earnest money shall be furnished in one of the following forms:

i) Account Payee Demand Draft
ii) Banker's cheque and
iii) Bank Guarantee

19.4 The demand draft or banker's cheque shall be drawn on any commercial bank in India or country of the tenderer, in favour of the "HLL Lifecare Limited" payable at New Delhi. In case of bank guarantee, the same is to be provided from any commercial bank in India or country of the tenderer as per the format specified under Section XIII in these documents.

19.5 The earnest money shall be valid for a period of forty-five (45) days beyond the validity period of the tender. As validity period of Tender as per Clause 20 of GIT is 120 days, the EMD shall be valid for 165 days from Techno – Commercial Tender opening date.

19.6 Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than thirty days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.

19.7 Earnest Money is required to protect the purchaser against the risk of the Tenderer's conduct, which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer's earnest money will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.

19.8 In the case of Bank Guarantee furnished from banks outside India (i.e. foreign Banks), it should be authenticated and countersigned by any nationalised bank in India by way of back-to-back counter guarantee.

20. Tender Validity

20.1 If not mentioned otherwise in the SIT, the tenders shall remain valid for acceptance for a period of 120 days (One hundred and twenty days) after the date of tender opening prescribed in the TE document. Any tender valid for a shorter period shall be treated as unresponsive and rejected.

20.2 In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by surface mail or by fax/ telex/cable followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any

change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, however, may not agree to extend its tender validity without forfeiting its EMD.

20.3 In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.

21. Signing and Sealing of Tender

21.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11.

21.2 Deleted.

21.3 The tender shall be signed by the tenderer or by a person(s) who has been duly authorized to bind the tenderer to the contract. The letter of authorization shall be by a written power of attorney, which shall also be furnished along with the tender **(please upload the scan copy of power of attorney)**.

21.4 All the copies of the tender shall be duly signed at the appropriate places as indicated in the TE documents and all other pages of the tender including printed literature, if any shall be initialled by the same person(s) signing the tender. The tender shall not contain any erasure or overwriting, except as necessary to correct any error made by the tenderer and, if there is any such correction; the same shall be initialled by the person(s) signing the tender.

21.5 The following documents shall be prepared and scanned in different files (in PDF or JPEG format) and uploaded during the on-line submission of Proposal. These documents shall also be submitted in '**ORIGINAL**' to HLL Lifecare Ltd before the prescribed date & time for submission of Proposals.

a) Power of Attorney for signing the Tender

b) Demand Draft towards Tender Fee in favour of HLL lifecare Ltd

c) EMD in the prescribed format in favour of HLL lifecare Ltd

d) Manufacturer Authorisation certificate

e) Technical Data Sheet and technical literature along with technical compliance statement (extra document which has not been uploaded in e-mode will not be entertained)

f) All Standardisation certificates as called in the tender

g) Application processing fee is as mentioned in the website in each line item i.e. inclusive of all taxes shall be paid to M/s. ITI Limited through E-Payment gateway of Punjab National Bank using Credit Card/ Debit Card- Master Card and Visa Card only. There will be no physical submission of Demand Draft for the same.

h) The Financial Proposal i.e. FORMAT FOR SUBMISSION OF FINANCIAL PROPOSAL should be submitted **online only** in the prescribed format given in the website. No other mode of submission is accepted.

Note:- Tender will be evaluated as and where basis and no clarification subsequent to opening will be entertained.

21.6 TE document seeks quotation following **two Tender System**, in two parts. First part will be known as **'Techno - Commercial Tender'**, and the second part **'Price Tender'** as specified in clause 11 of GIT.

D. SUBMISSION OF TENDERS

22. Submission of Tenders

22.1 Detailed tender document may be downloaded from Tender Wizard and the tender may be submitted online following the instructions appearing on the screen. A Vendor manual containing the detailed guidelines for e-tendering system is also available on Tender Wizard. The hard copies requested in the tender are to deposit in the tender box kept for this purpose at **HLL Lifecare Limited, Procurement and Consultancy Division, B-14 A, Sector-62, Noida-201 307, Uttar Pradesh before the due date and time of submission of tender.**

22.2 The tenderers must ensure that they deposit their tenders not later than the closing time and date specified for submission of tenders. It is the responsibility of the tenderer to ensure that their Tenders whether sent by post or by courier or by person, are dropped in the Tender Box by the specified clearing date and time.

22.3 No hard copies except otherwise as mentioned in the tender enquiry document need to be submitted.

23. Late Tender

23.1 The Original document which has been asked in the tender, which is received after the specified date and time for receipt of tenders will be treated as "late" tender and will be ignored.

24. Alteration and Withdrawal of Tender

24.1 The Bidder may modify, substitute or withdraw its e- tender after submission, prior to the tender Due Date. No tender shall be modified, substituted or withdrawn by the Bidder on or after the tender Due Date.

(i) Any alteration/ modification in the tender or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.

(ii) For modification of e-bid, bidder has to detach its old bid proposal from e-tendering portal and upload / resubmit digitally signed modified bid.

(iii) For withdrawal of bid, Applicant has to click on withdrawal icon at e-tendering portal and can withdraw its e- bid.

E. TENDER OPENING

25. Opening of Tenders

25.1 The purchaser will open the tenders at the specified date and time as indicated in the NIT. Opening of tender will be done through online process.

25.2 For participating in the tender, the authorized signatory holding Power of Attorney shall be the Digital Signatory. In case the authorized signatory holding Power of Attorney and Digital Signatory are not the same, the proposal shall be considered non-responsive.

(i) The Authority shall open documents of the Application received in electronic form as mentioned in the tender document at 14:30 hours Indian Standard Time on the bid due date i.e. in the presence of the Applicants who choose to attend. The Authority will subsequently examine and evaluate the bids in accordance with the provisions set out in the tender enquiry document.

(ii) The Financial Proposal of the pre-qualified and short listed applicants will only be opened. The date of opening of Financial Proposal will be notified later on.

25.3 Two - Tender system as mentioned in Para 21.6 above will be as follows. The **Techno - Commercial Tenders** are to be opened in the first instance, at the prescribed time and date as indicated in NIT. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document. During the Techno - Commercial Tender opening, the tender opening official(s) will read the salient features of the tenders like brief description of the goods offered, delivery period, Earnest Money Deposit and any other special features of the tenders, as deemed fit by the tender opening official(s). Thereafter, in the second stage, the Price Tenders of only the Techno - Commercially acceptable offers (as decided in the first stage) shall be opened for further scrutiny and evaluation on a date notified after the evaluation of the Techno – Commercial tender. The prices, special discount if any of the goods offered etc., as deemed fit by tender opening official(s) will be read out.

F. SCRUTINY AND EVALUATION OF TENDERS

26. Basic Principle

26.1 Tenders will be evaluated on the basis of the terms & conditions already incorporated in the TE document, based on which tenders have been received and the terms, conditions etc. mentioned by the tenderers in their tenders. No new condition will be brought in while scrutinizing and evaluating the tenders.

27. Preliminary Scrutiny of Tenders

27.1 The Purchaser will examine the Tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed stamped and whether the Tenders are generally in order.

27.2 Prior to the detailed evaluation of Price Tenders, pursuant to GIT Clause 34, the Purchaser will determine the substantial responsiveness of each Tender to the TE Document. For purposes of these clauses, a substantially responsive Tender is one, which conforms to all the terms and conditions of the TE Documents without material deviations. Deviations from, or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 5), Warranty (GCC Clause 15), EMD (GIT Clause 19), Taxes & Duties (GCC Clause 20), Force Majeure (GCC Clause 26) and Applicable law (GCC Clause 31) will be deemed to be a material deviation. The Purchaser's determination of a Tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.

27.3 If a Tender is not substantially responsive, it will be rejected by the Purchaser and cannot subsequently be made responsive by the Tenderer by correction of the nonconformity.

27.4 The tenders will be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions etc. as prescribed in the TE document. The tenders, which do not the meet the basic requirements, are liable to be treated as non – responsive and will be summarily ignored.

27.5 The following are some of the important aspects, for which a tender shall be declared non – responsive and will be summarily ignored;

(i) Tender form as per Section X (signed and stamped) not enclosed
(ii) Tender is unsigned.
(iii) Tender validity is shorter than the required period.
(iv) Required EMD (Amount, validity etc.)/ exemption documents have not been provided.
(v) Tenderer has quoted for goods manufactured by other manufacturer(s) without the required Manufacturer's Authorisation Form as per Section XIV.
(vi) Tenderer has not agreed to give the required performance security.
(vii) Goods offered are not meeting the tender enquiry specification.
(viii) Tenderer has not agreed to other essential condition(s) specially incorporated in the tender enquiry like terms of payment, liquidated damages clause, warranty clause, dispute resolution mechanism applicable law.
(ix) Poor/ unsatisfactory past performance.
(x) Tenderers who stand deregistered/banned/blacklisted by any Govt. Authorities.
(xi) Tenderer is not eligible as per GIT Clauses 5.1 & 17.1.
(xii) Tenderer has not quoted for the entire quantity as specified in the List of Requirements in the quoted schedule.

28. Minor Infirmity/Irregularity/Non-Conformity

28.1 If during the preliminary examination, the purchaser find any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser may waive the same provided it does not constitute any material deviation and financial impact and, also, does not prejudice or affect the ranking order of the tenderers. Wherever necessary, the purchaser will convey its observation on such 'minor' issues to the tenderer by registered/speed post etc. asking the tenderer to respond by a specified date. If the tenderer does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.

29 Discrepancies in Prices

29.1 If, in the price structure quoted by a tenderer, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless the purchaser feels that the tenderer has made a mistake in placing the decimal point in the unit price, in which case the total price as quoted shall prevail over the unit price and the unit price corrected accordingly.

29.2 If there is an error in a total price, which has been worked out through addition and/or subtraction of subtotals, the subtotals shall prevail and the total corrected; and

29.3 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail, subject to sub clause 29.1 and 29.2 above.

29.4 If, as per the judgement of the purchaser, there is any such arithmetical discrepancy in a tender, the same will be suitably conveyed to the tenderer by registered / speed post. If the tenderer does not agree to the observation of the purchaser, the tender is liable to be ignored.

30. Discrepancy between original and uploaded scan copies of Tender

30.1 In the event of any discrepancy between the original and the copy (in electronic form), the original shall prevail.
It may be noted that scan copies can be prepared in different file format (PDF, JPEG).
It may also be noted that Applicants can upload a single file of size of 5 MB only but you can upload multiple files

31. Qualification Criteria

31.1 Tenders of the tenderers, who do not meet the required Qualification Criteria prescribed in Section IX, will be treated as non - responsive and will not be considered further.

32. Conversion of tender currencies to Indian Rupees

32.1 In case the TE document permits the tenderers to quote their prices in different currencies, all such quoted prices of the responsive tenderers will be converted to a single currency viz., Indian Rupees for the purpose of equitable comparison and evaluation, as per the exchange rates established by the Reserve Bank of India for similar transactions, as on the date of 'Price Tender' opening.

33. Schedule-wise Evaluation

33.1 In case the List of Requirements contains more than one schedule, the responsive tenders will be evaluated and compared separately for each schedule. The tender for a schedule will not be considered if the complete requirements prescribed in that schedule are not included in the tender. However, as already mentioned in GIT sub clause 13.2, the tenderers have the option to quote for any one or more schedules and offer discounts for combined schedules. Such discounts wherever applicable will be taken into account to determine the lowest evaluated cost for the purchaser in deciding the successful tenderer for each schedule, subject to tenderer(s) being responsive.

34. Comparison of Tenders

34.1 Unless mentioned otherwise in Section – III – Special Instructions to Tenderers and Section – VI – List of Requirements, the comparison of the responsive tenders shall be carried out on Delivery Duty Paid (DDP) consignee site basis. The quoted turnkey prices and CMC prices for 5 years will also be added for comparison/ranking purpose for evaluation. However, CMC from 6^{th} year to 8^{th} year (after warranty obligation) also to be quoted separately which will not be considered for ranking purpose.

35. Additional Factors and Parameters for Evaluation and Ranking of Responsive Tenders

35.1 Further to GIT Clause 34 above, the purchaser's evaluation of a tender will include and take into account the following:

i) In the case of goods manufactured in India or goods of foreign origin already located in India, sales tax & other similar taxes and excise duty & other similar duties, Customs

Duties, Service Tax, Works Contract Tax etc which will be contractually payable (to the tenderer), on the goods if a contract is awarded on the tenderer; and

ii) in the case of goods of foreign origin offered from abroad, customs duty and other similar import duties/taxes, which will be contractually payable (to the tenderer) on the goods if the contract is awarded on the tenderer.

35.2 The purchaser's evaluation of tender will also take into account the additional factors, if any, incorporated in SIT in the manner and to the extent indicated therein.

35.3 The Purchaser reserves the right to give the price preference to small-scale sectors etc. and purchase preference to central public sector undertakings as per the instruction in vogue while evaluating, comparing and ranking the responsive tenders.

36. Tenderer's capability to perform the contract

36.1 The purchaser, through the above process of tender scrutiny and tender evaluation will determine to its satisfaction whether the tenderer, whose tender has been determined as the lowest evaluated responsive tender is eligible, qualified and capable in all respects to perform the contract satisfactorily. If, there is more than one schedule in the List of Requirements, then, such determination will be made separately for each schedule.

36.2 The above-mentioned determination will, interalia, take into account the tenderer's financial, technical and production capabilities for satisfying all the requirements of the purchaser as incorporated in the TE document. Such determination will be based upon scrutiny and examination of all relevant data and details submitted by the tenderer in its tender as well as such other allied information as deemed appropriate by the purchaser.

37. Contacting the Purchaser

37.1 From the time of submission of tender to the time of awarding the contract, if a tenderer needs to contact the purchaser for any reason relating to this tender enquiry and / or its tender, it should do so only in writing.

37.2 In case a tenderer attempts to influence the purchaser in the purchaser's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tender of the tenderer shall be liable for rejection in addition to appropriate administrative actions being taken against that tenderer, as deemed fit by the purchaser.

G. AWARD OF CONTRACT

38. Purchaser's Right to accept any tender and to reject any or all tenders

38.1 The purchaser reserves the right to accept in part or in full any tender or reject any or more tender(s) without assigning any reason or to cancel the tendering process and reject all tenders at any time prior to award of contract, without incurring any liability, whatsoever to the affected tenderer or tenderers.

39. Award Criteria

39.1 Subject to GIT clause 38 above, the contract will be awarded to the lowest evaluated responsive tenderer decided by the purchaser in terms of GIT Clause 36.

40. Variation of Quantities at the Time of Award/ Currency of Contract

40.1 At the time of awarding the contract, the purchaser reserves the right to increase or decrease by up to twenty five (25) per cent, the quantity of goods and services mentioned

in the schedule (s) in the "List of Requirements" (rounded of to next whole number) without any change in the unit price and other terms & conditions quoted by the tenderer.

40.2 If the quantity has not been increased at the time of the awarding the contract, the purchaser reserves the right to increase by up to twenty five (25) per cent, the quantity of goods and services mentioned in the contract (rounded of to next whole number) without any change in the unit price and other terms & conditions mentioned in the contract, during the currency of the contract after one year from the Date of Notification of Award.

41. Notification of Award

41.1 Before expiry of the tender validity period, the purchaser will notify the successful tenderer(s) in writing, by registered / speed post or by fax/ telex/cable (to be confirmed by registered / speed post) that its tender for goods & services, which have been selected by the purchaser, has been accepted, also briefly indicating therein the essential details like description, specification and quantity of the goods & services and corresponding prices accepted. The successful tenderer must furnish to the purchaser the required performance security within thirty days from the date of dispatch of this notification, failing which the EMD will forfeited and the award will be cancelled. Relevant details about the performance security have been provided under GCC Clause 5 under Section IV.

41.2 The Notification of Award shall constitute the conclusion of the Contract.

42. Issue of Contract

42.1 Promptly after notification of award, the Purchaser/Consignee will mail the contract form (as per Section XVI) duly completed and signed, in duplicate, to the successful tenderer by registered / speed post.

42.2 Within twenty one days from the date of the contract, the successful tenderer shall return the original copy of the contract, duly signed and dated, to the Purchaser/Consignee by registered / speed post.

42.3 The Purchaser/Consignee reserves the right to issue the Notification of Award consignee wise.

43. Non-receipt of Performance Security and Contract by the Purchaser/Consignee

43.1 Failure of the successful tenderer in providing performance security and / or returning contract copy duly signed in terms of GIT clauses 41 and 42 above shall make the tenderer liable for forfeiture of its EMD and, also, for further actions by the Purchaser/Consignee against it as per the clause 24 of GCC – Termination of default.

44. Return of E M D

44.1 The earnest money of the successful tenderer and the unsuccessful tenderers will be returned to them without any interest, whatsoever, in terms of GIT Clause 19.6.

45. Publication of Tender Result

45.1 The name and address of the successful tenderer(s) receiving the contract(s) will be mentioned in the notice board/bulletin/web site of the purchaser.

46. Corrupt or Fraudulent Practices

46.1 It is required by all concerned namely the Consignee/Tenderers/Suppliers etc to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Purchaser: -

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and

(ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;

(b) will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

(c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by the purchaser if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.

SECTION - III
SPECIAL INSTRUCTIONS TO TENDERERS
(SIT)

Preparation and submission of tender in e-tender mode

The instructions have been given by the e- portal service provider to help the bidders in uploading the tender enquiry document are attached in the website link with the Tender document.

The Special Instructions to Tenderers will apply for this purchase. These special instructions will modify/substitute/supplement the corresponding General Instructions to Tenderers (GIT) incorporated in Section II. The corresponding GIT clause numbers have also been indicated in the text below:
In case of any conflict between the provision in the GIT and that in the SIT, the provision contained in the SIT shall prevail.

SECTION - IV
GENERAL CONDITIONS OF CONTRACT (GCC)
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GENERAL CONDITIONS OF CONTRACT (GCC)

1. Application

1.1 The General Conditions of Contract incorporated in this section shall be applicable for this purchase to the extent the same are not superseded by the Special Conditions of Contract prescribed under Section V, List of requirements under Section VI and Technical Specification under Section VII of this document.

2. Use of contract documents and information

2.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the purchaser in connection therewith, to any person other than the person(s) employed by the supplier in the performance of the contract emanating from this TE document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.

2.2 Further, the supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC sub-clause 2.1 above except for the sole purpose of performing this contract.

2.3 Except the contract issued to the supplier, each and every other document mentioned in GCC sub-clause 2.1 above shall remain the property of the purchaser and, if advised by the purchaser, all copies of all such documents shall be returned to the purchaser on completion of the supplier's performance and obligations under this contract.

3. Patent Rights

3.1 The supplier shall, at all times, indemnify and keep indemnified the purchaser, free of cost, against all claims which may arise in respect of goods & services to be provided by the supplier under the contract for infringement of any intellectual property rights or any other right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trade marks etc. being made against the purchaser, the purchaser shall notify the supplier of the same and the supplier shall, at his own expenses take care of the same for settlement without any liability to the purchaser.

4. Country of Origin

4.1 All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of India has trade relations.

4.2 The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.

4.3 The country of origin may be specified in the Price Schedule

5. Performance Security

5.1 Within thirty (30) days from date of the issue of notification of award by the Purchaser/Consignee, the supplier, shall furnish performance security to the Purchaser/Consignee for an amount equal to ten percent (10%) of the total value of the contract, valid up to sixty (60) days after the date of completion of all contractual obligations by the supplier, including the warranty obligations, initially valid for a period of minimum 30 months from the date of Notification of Award

5.2 The Performance security shall be denominated in Indian Rupees or in the currency of the contract as detailed below:

It shall be in any one of the forms namely Account Payee Demand Draft drawn from any Scheduled bank in India or Bank Guarantee issued by a Scheduled bank in India, in the prescribed form as provided in section XV of this document in favour of the Purchaser/Consignee. The validity of the Fixed Deposit receipt or Bank Guarantee will be for a period up to sixty (60) days beyond Warranty Period.

5.3 In the event of any failure /default of the supplier with or with out any quantifiable loss to the government including furnishing of consignee wise Bank Guarantee for CMC security as per Proforma in Section XV, the amount of the performance security is liable to be forfeited. The Administration Department may do the needful to cover any failure/default of the supplier with or without any quantifiable loss to the Government.

5.4 In the event of any amendment issued to the contract, the supplier shall, within twenty-one (21) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.

5.5 The supplier shall enter into Annual Comprehensive Maintenance Contract as per the 'Contract Form – B' in Section XVI with respective consignees, 3 (three) months prior to the completion of Warranty Period. The CMC will commence from the date of expiry of the Warranty Period.

5.6 Subject to GCC sub – clause 5.3 above, the Purchaser/Consignee will release the Performance Security without any interest to the supplier on completion of the supplier's all contractual obligations including the warranty obligations & after receipt of Consignee wise bank guarantee for CMC security in favour of HLL Lifecare Ltd./Head of the Hospital/ Institute/ Medical College of the consignee as per the format in Section XV.

6. Technical Specifications and Standards

6.1 The Goods & Services to be provided by the supplier under this contract shall conform to the technical specifications and quality control parameters mentioned in 'Technical Specification' and 'Quality Control Requirements' under Sections VII and VIII of this document.

7. Packing and Marking

7.1 The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transhipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.

7.2 The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications and Quality Control Requirements under Sections VII and VIII and in SCC under Section V. In case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the supplier accordingly.

7.3 Packing instructions:

Unless otherwise mentioned in the Technical Specification and Quality Control Requirements under Sections VII and VIII and in SCC under Section V, the supplier shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following with indelible paint of proper quality:

a. contract number and date
b. brief description of goods including quantity
c. packing list reference number
d. country of origin of goods
e. consignee's name and full address and
f. supplier's name and address

8. Inspection, Testing and Quality Control

8.1 The purchaser and/or its nominated representative(s) will, without any extra cost to the purchaser, inspect and/or test the ordered goods and the related services to confirm their conformity to the contract specifications and other quality control details incorporated in the contract. The purchaser shall inform the supplier in advance, in writing, the purchaser's programme for such inspection and, also the identity of the officials to be deputed for this purpose. The cost towards the transportation, boarding & lodging will be borne by the purchaser and/or its nominated representative(s).

8.2 The Technical Specification and Quality Control Requirements incorporated in the contract shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the supplier or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the supplier to the purchaser's inspector at no charge to the purchaser.

8.3 If during such inspections and tests the contracted goods fail to conform to the required specifications and standards, the purchaser's inspector may reject them and the supplier shall either replace the rejected goods or make all alterations necessary to meet the specifications and standards, as required, free of cost to the purchaser and resubmit the same to the purchaser's inspector for conducting the inspections and tests again.

8.4 In case the contract stipulates pre-despatch inspection of the ordered goods at supplier's premises, the supplier shall put up the goods for such inspection to the purchaser's inspector well ahead of the contractual delivery period, so that the purchaser's inspector is able to complete the inspection within the contractual delivery period.

8.5 If the supplier tenders the goods to the purchaser's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the supplier. The fact that the goods have been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the purchaser under the terms & conditions of the contract.

8.6 The purchaser's/consignee's contractual right to inspect, test and, if necessary, reject the goods after the goods' arrival at the final destination shall have no bearing of the fact that the goods have previously been inspected and cleared by purchaser's inspector during pre-despatch inspection mentioned above.

8.7 Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 15.

8.8 Principal/ Foreign supplier shall also have the equipment inspected by recognised/ reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to despatch at the supplier's cost and furnish necessary certificate from the said agency in support of their claim.

9. Terms of Delivery

9.1 Goods shall be delivered by the supplier in accordance with the terms of delivery specified in the contract.

10. Transportation of Goods

10.1 Instructions for transportation of imported goods offered from abroad:

The supplier shall not arrange part-shipments and/or transhipment without the express/prior written consent of the purchaser. The supplier is required under the contract to deliver the goods under CIP (Named port of destination) terms; the shipment shall be made by Indian flag vessel or by vessels belonging to the conference lines in which India is a member country through India's forwarding agents/coordinators. In case the forwarding agent/coordinators are unable to provide timely adequate space in Indian flag vessel or by vessels belonging to the conference lines, the supplier shall arrange shipment through any available vessel to adhere to the delivery schedule given in the contract.

In case of airlifting of imported goods offered from abroad, the same will be done only through the National Carrier i.e. Air India wherever applicable. In case the National Carrier is not available, any other airlines available for early delivery may be arranged.

10.2 Instructions for transportation of domestic goods including goods already imported by the supplier under its own arrangement:

In case no instruction is provided in this regard in the SCC, the supplier will arrange transportation of the ordered goods as per its own procedure.

11. Insurance:

11.1 Unless otherwise instructed in the SCC, the supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the following manner:

i) in case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured. The insurance cover for 110% value of the goods shall be obtained by the Supplier and should be valid till 3 months after the receipt of goods by the Consignee.

ii) in case of supply of the imported goods on CIP Named port of Destination Basis, the additional extended Insurance (local transportation and storage) would be borne by the Supplier from the port of entry to the consignee site for a period including 3 months beyond date of delivery.

If the equipment is not commissioned and handed over to the consignee within 3 months, the insurance will be got extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to the supplier by the consignee, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actuals will be reimbursed.

12. Spare parts

12.1 If specified in the List of Requirements and in the resultant contract, the supplier shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the supplier:

a) The spare parts as selected by the Purchaser/Consignee to be purchased from the supplier, subject to the condition that such purchase of the spare parts shall not relieve the supplier of any contractual obligation including warranty obligations; and

b) In case the production of the spare parts is discontinued:

i) Sufficient advance notice to the Purchaser/Consignee before such discontinuation to provide adequate time to the purchaser to purchase the required spare parts etc., and

ii) Immediately following such discontinuation, providing the Purchaser/Consignee, free of cost, the designs, drawings, layouts and specifications of the spare parts, as and if requested by the Purchaser/Consignee.

12.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the goods so that the same are supplied to the Purchaser/Consignee promptly on receipt of order from the Purchaser/Consignee.

13. Incidental services

13.1 Subject to the stipulation, if any, in the SCC (Section – V), List of Requirements (Section – VI) and the Technical Specification (Section – VII), the supplier shall be required to perform the following services.

i) Installation & commissioning, Supervision and Demonstration of the goods
ii) Providing required jigs and tools for assembly, minor civil works required for the completion of the installation.
iii) Training of Consignee's Doctors, Staff, operators etc. for operating and maintaining the goods
iv) Supplying required number of operation & maintenance manual for the goods

14. Distribution of Dispatch Documents for Clearance/Receipt of Goods

The supplier shall send all the relevant despatch documents well in time to the Purchaser/Consignee to enable the Purchaser/Consignee clear or receive (as the case may be) the goods in terms of the contract.
Unless otherwise specified in the SCC, the usual documents involved and the drill to be followed in general for this purpose are as follows.

A) For Domestic Goods, including goods already imported by the supplier under its own arrangement

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract):

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Consignee Receipt Certificate as per Section XVII in original issued by the authorized representative of the consignee;
(iii) Two copies of packing list identifying contents of each package;
(iv) Inspection certificate issued by the nominated Inspection agency, if any.
(v) Certificate of origin;
(vi) Insurance Certificate as per GCC Clause 11.
(vii) Manufacturers/Supplier's warranty certificate & In-house inspection certificate.

B) For goods imported from abroad

Within 24 hours of despatch, the supplier shall notify the purchaser, consignee, and others concerned if mentioned in the contract, the complete details of despatch and also supply the following documents to them by registered post / speed post (or as instructed in the contract). Any delay or demurrage occurred during the customs clearance on account of the non-availability of technical support/ clarifications /documents from the supplier shall be borne by the supplier:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Original and four copies of the negotiable clean, on-board Bill of Lading/Airway bill, marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
(iii) Four Copies of packing list identifying contents of each package;
(iv) Insurance Certificate as per GCC Clause 11.
(v) Manufacturer's/Supplier's warranty certificate;
(vi) Inspection Certificate for the despatched equipments issued by recognized/ reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to despatch
(vii) Manufacturer's own factory inspection report;
(viii) Certificate of origin
(ix) Port of Loading;
(x) Port of Discharge and
(xi) Expected date of arrival.

15. Warranty

15.1 The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials (*except when the design adopted and / or the material used are as per the Purchaser's/Consignee's specifications*) or workmanship or from any act or omission of the supplier, that may develop under normal use of the supplied goods under the conditions prevailing in India.

15.2 The **warranty** shall remain valid for 24 months from the date of installation & commissioning except for the following,

a. for 5 (Five) Years exclusively for items mentioned below:

CT Scan, MRI- 1.5 Tesla,Bi Plane DSA, Cath Lab, 1000m A x ray machine.

followed by a CMC for a period of 5 (Five) Years and additional 3 (three) years as stated GIT clause 34.1 for all the equipments after the goods or any portion thereof as the case may be, have been delivered to the final destination and installed and commissioned at the final destination and accepted by the purchaser/CONSIGNEE in terms of the contract, unless specified otherwise in the SCC.

b. No conditional warranty like mishandling, manufacturing defects etc. will be acceptable.

c. Warranty as well as Comprehensive Maintenance contract will be inclusive of all accessories and Turnkey work and it will also cover the following:-

- X-ray and CT tubes and high-tension cables.
- Helium replacement
- Any kind of motor.
- Plastic & Glass Parts.
- All kind of sensors including oxygen sensors.
- All kind of coils, probes and transducers including ECG cable, BP transducers, SpO2 Probes, Ultrasound and Colour Doppler Transducers/ probes, BP cuffs, Defibrillator internal and external paddles, chart recorders, ventilator reusable patient circuits, servo humidifier with chamber, electrodes and probes for blood gas analyzer, MRI coils.
- All kind of flat panel sensors and cassettes for DR & CR systems and patients handling trolleys etc
- Printers and imagers including laser and thermal printers with all parts.
- UPS including the replacement of batteries.
- Air-conditioners

d. Replacement and repair will be under taken for the defective goods.

e. Proper marking has to be made for all spares for identification like printing of installation and repair dates.

15.3 In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 15.2 above irrespective of any other period mentioned elsewhere in the bidding documents.

15.4 Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non rectification will be applicable as per tender conditions

15.5 In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended to a further period of twenty four (24) months from the date such rectified / replaced goods starts functioning to the satisfaction of the purchaser.

15.6 If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed

to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.

15.7 During Warranty period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods

15.8 The Purchaser/Consignee reserve the rights to enter into Annual Comprehensive Maintenance Contract between Consignee and the Supplier for the period as mentioned in Section VII, Technical Specifications after the completion of warranty period.

15.9 The supplier along with its Indian Agent and the CMC provider shall ensure continued supply of the spare parts for the machines and equipments supplied by them to the purchaser for 10 years from the date of installation and handing over.

15.10 The Supplier along with its Indian Agent and the CMC Provider shall always accord most favoured client status to the Purchaser vis-à-vis its other Clients/Purchasers of its equipments/machines/goods etc. and shall always give the most competitive price for its machines/equipments supplied to the Purchaser/Consignee.

16. Assignment

16.1 The Supplier shall not assign, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with the Purchaser's prior written permission.

17. Sub Contracts

17.1 The Supplier shall notify the Purchaser in writing of all sub contracts awarded under the contract if not already specified in its tender. Such notification, in its original tender or later, shall not relieve the Supplier from any of its liability or obligation under the terms and conditions of the contract.

17.2 Sub contract shall be only for bought out items and sub-assemblies.

17.3 Sub contracts shall also comply with the provisions of GCC Clause 4 ("Country of Origin").

18. Modification of contract

18.1 If necessary, the purchaser may, by a written order given to the supplier at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract in any one or more of the following:

a) Specifications, drawings, designs etc. where goods to be supplied under the contract are to be specially manufactured for the purchaser,
b) Mode of packing,
c) Incidental services to be provided by the supplier
d) Mode of despatch,
e) Place of delivery, and
f) Any other area(s) of the contract, as felt necessary by the purchaser depending on the merits of the case.

18.2 In the event of any such modification/alteration causing increase or decrease in the cost of goods and services to be supplied and provided, or in the time required by the supplier to perform any obligation under the contract, an equitable adjustment shall be made in the contract price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the supplier doesn't agree to the adjustment made by the Purchaser/Consignee, the supplier shall convey its views to the Purchaser/Consignee within

twenty-one days from the date of the supplier's receipt of the Purchaser's/Consignee's amendment / modification of the contract.

19. Prices

19.1 Prices to be charged by the supplier for supply of goods and provision of services in terms of the contract shall not vary from the corresponding prices quoted by the supplier in its tender and incorporated in the contract except for any price adjustment authorised in the SCC.

20. Taxes and Duties

20.1 Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until delivery of the contracted goods to the purchaser.

20.2 Further instruction, if any, shall be as provided in the SCC.

21. Terms and Mode of Payment

21.1 Payment Terms

Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner.

A) Payment for Domestic Goods Or Foreign Origin Located Within India.

Payment shall be made in Indian Rupees as specified in the contract in the following manner:

a) On delivery:

75 % payment of the contract price shall be paid on receipt of goods in good condition and upon the submission of the following documents:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Consignee Receipt Certificate as per Section XVII in original issued by the authorized representative of the consignee;
(iii) Two copies of packing list identifying contents of each package;
(iv) Inspection certificate issued by the nominated Inspection agency, if any.
(v) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment of LC confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
(vi) Certificate of origin.

b) On Acceptance:

Balance 25 % payment would be made against 'Final Acceptance Certificate' as per Section XVIII of goods to be issued by the consignees subject to recoveries, if any, either on account of non-rectification of defects/deficiencies not attended by the Supplier or otherwise.

B) Payment for Imported Goods:

Payment for foreign currency portion shall be made in the currency as specified in the contract in the following manner:

a) On Shipment:

Seventy Five (75)% of the net CIP price (CIP price less Indian Agency commission) of the goods shipped shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of documents specified hereunder:

(i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
(ii) Original and four copies of the negotiable clean, on-board Bill of Lading/ Airway bill , marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
(iii) Four Copies of packing list identifying contents of each package;
(iv) Insurance Certificate as per GCC Clause 11 and documents also to be submitted for payment of LC confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
(v) Manufacturer's/Supplier's warranty certificate;
(vi) Inspection certificate issued by the nominated inspection agency, if applicable as per contract;
(vii) Manufacturer's own factory inspection report and
(viii) Certificate of origin by the chamber of commerce of the concerned country;
(ix) Inspection Certificate for the despatched equipments issued by recognized/ reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to despatch.
(x) Certificate of origin

b) On Acceptance:

Balance payment of 25 % of net CIP price of goods would be made against 'Final Acceptance Certificate' as per Section XVIII to be issued by the consignees through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the Foreign Principal in a bank in his country, subject to recoveries, if any.

c) Payment of Incidental Costs till consignee site & Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) will be paid in Indian Rupees to the Indian Agent on proof of 100 % payment to the Foreign Principal.

d) Payment of Indian Agency Commission:

Indian Agency commission will be paid to the manufacturer's agent in the local currency for an amount in Indian rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation. Payment shall be paid in Indian Rupees to the Indian Agent on proof of 100 % payment to the Foreign Principal.

C) Payment of Turnkey, if any:

Turnkey payment will be made to the manufacturer's agent in Indian rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of Contract) and shall not be subject to further escalation / exchange variation. Payment shall be made in Indian Rupees to the Indian Agent on proof of 100 % payment to the Foreign Principal.

D) Payment for Annual Comprehensive Maintenance Contract Charges:

The **Purchaser/consignee** will enter into CMC with the supplier at the rates as stipulated in the contract. The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by the consignee on receipt of bank guarantee for an amount equivalent to 2.5 % of the cost of the equipment as per contract in the prescribed format given in Section XV valid till 2 months after expiry of entire CMC period.

21.2 The supplier shall not claim any interest on payments under the contract.

21.3 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other tax as applicable will be made from the bills payable to the Supplier at rates as notified from time to time.

21.4 Irrevocable & non – transferable LC shall be opened by the respective consignees. However, if the supplier requests specifically to open confirmed LC, the extra charges would be borne by the supplier. If LC is required to be extended and/or amended for reasons not attributable to the purchaser/consignee, the charges thereof shall be borne by the supplier.

21.5 The payment shall be made in the currency / currencies authorised in the contract.

21.6 The supplier shall send its claim for payment in writing, when contractually due, along with relevant documents etc., duly signed with date, to respective consignees.

21.7 While claiming payment, the supplier is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the supplier for claiming that payment has been fulfilled as required under the contract.

21.8 While claiming reimbursement of duties, taxes etc. (like sales tax, excise duty, custom duty) from the Purchaser/Consignee, as and if permitted under the contract, the supplier shall also certify that, in case it gets any refund out of such taxes and duties from the concerned authorities at a later date, it (the supplier) shall refund to the Purchaser/Consignee forthwith.

21.9 In case where the supplier is not in a position to submit its bill for the balance payment for want of receipted copies of Inspection Note from the consignee and the consignee has not complained about the non-receipt, shortage, or defects in the supplies made, balance amount will be paid by the paying authority without consignee's receipt certificate after three months from the date of the preceding part payment for the goods in question, subject to the following conditions:

(a) The supplier will make good any defect or deficiency that the consignee (s) may report within six months from the date of despatch of goods.
(b) Delay in supplies, if any, has been regularized.
(c) The contract price where it is subject to variation has been finalized.
(d) The supplier furnishes the following undertakings:

"I/We, _____ certify that I/We have not received back the Inspection Note duly receipted by the consignee or any communication from the purchaser or the consignee about non-receipt, shortage or defects in the goods supplied. I/We _____ agree to make good any defect or deficiency that the consignee may report within three months from the date of receipt of this balance payment.

22. Delay in the supplier's performance

22.1 The supplier shall deliver of the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as incorporated in the contract.

22.2 Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:

(i) imposition of liquidated damages,
(ii) forfeiture of its performance security and
(iii) termination of the contract for default.

22.3 If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the Purchaser/Consignee in writing about the same and its likely duration and make a request to the Purchaser/Consignee for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser/Consignee shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

22.4 When the period of delivery is extended due to unexcused delay by the supplier, the amendment letter extending the delivery period shall, interalia contain the following conditions:

(a) The Purchaser/Consignee shall recover from the supplier, under the provisions of the clause 23 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.
(b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground and, also including statutory increase in or fresh imposition of customs duty, excise duty, sales tax/ VAT, Service Tax and Works Contract Tax or on account of any other tax or duty which may be levied in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.
(c) But nevertheless, the Purchaser/Consignee shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, excise duty, sales tax/ VAT, Service Tax and Works Contract Tax or any other duty or tax or levy or on account of any other grounds, which takes place after the expiry of the date of delivery stipulated in the contract.

22.5 The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the Purchaser/Consignee for extension of delivery period and obtain the same before despatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against the purchaser.

23. Liquidated damages

23.1 Subject to GCC clause 26, if the supplier fails to deliver any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, the Purchaser/Consignee shall, without prejudice to other rights and remedies available to the Purchaser/Consignee under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of goods and/or services until actual delivery or performance subject to a maximum of 10% of

the contract price. Once the maximum is reached Purchaser/Consignee may consider termination of the contract as per GCC 24.

During the above-mentioned delayed period of supply and / or performance, the conditions incorporated under GCC sub-clause 22.4 above shall also apply.

24. Termination for default

24.1 The Purchaser/Consignee , without prejudice to any other contractual rights and remedies available to it (the Purchaser/Consignee), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Purchaser/Consignee pursuant to GCC sub-clauses 22.3 and 22.4.

24.2 In the event of the Purchaser/Consignee terminates the contract in whole or in part, pursuant to GCC sub-clause 24.1 above, the Purchaser/Consignee may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the supplier shall be liable to the Purchaser/Consignee for the extra expenditure, if any, incurred by the Purchaser/Consignee for arranging such procurement.

24.3 Unless otherwise instructed by the Purchaser/Consignee, the supplier shall continue to perform the contract to the extent not terminated.

25. Termination for insolvency

25.1 If the supplier becomes bankrupt or otherwise insolvent, the purchaser reserves the right to terminate the contract at any time, by serving written notice to the supplier without any compensation, whatsoever, to the supplier, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Purchaser/Consignee.

26. Force Majeure

26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.

26.2 For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of , the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, acts of the Purchaser/Consignee either in its sovereign or contractual capacity, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees , lockouts excluding by its management, and freight embargoes.

26.3 If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

26.4 If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.

26.5 In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

27. Termination for convenience

27.1 The Purchaser/Consignee reserves the right to terminate the contract, in whole or in part for its (Purchaser's/Consignee 's) convenience, by serving written notice on the supplier at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Purchaser/Consignee. The notice shall also indicate interalia, the extent to which the supplier's performance under the contract is terminated, and the date with effect from which such termination will become effective.

27.2 The goods and services which are complete and ready in terms of the contract for delivery and performance within thirty days after the supplier's receipt of the notice of termination shall be accepted by the Purchaser/Consignee following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser/Consignee may decide:

a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or

b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

28. Governing language

28.1 The contract shall be written in English language following the provision as contained in GIT clause 4. All correspondence and other documents pertaining to the contract, which the parties exchange, shall also be written accordingly in that language.

29. Notices

29.1 Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or by cable or telex or facsimile and confirmed in writing. The procedure will also provide the sender of the notice, the proof of receipt of the notice by the receiver. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract.

29.2 The effective date of a notice shall be either the date when delivered to the recipient or the effective date specifically mentioned in the notice, whichever is later.

30. Resolution of disputes

30.1 If dispute or difference of any kind shall arise between the Purchaser/Consignee and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.

30.2 If the parties fail to resolve their dispute or difference by such mutual consultation within twenty-one days of its occurrence, then, unless otherwise provided in the SCC, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per the Arbitration and Conciliation Act, 1996 of India. In the case of a dispute or difference arising between the Purchaser/Consignee and a domestic Supplier relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to

the sole arbitration of an officer in the Ministry of Law and Justice, appointed to be the arbitrator by the Director General (Health Services). The award of the arbitrator shall be final and binding on the parties to the contract subject to the provision that the Arbitrator shall give reasoned award in case the value of claim in reference exceeds Rupees One lakhs (Rs. 1,00,000/-)

30.3 Venue of Arbitration: The venue of arbitration shall be the place from where the contract has been issued, i.e., New Delhi, India.

31. Applicable Law

The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force.

32. General/ Miscellaneous Clauses

32.1 Nothing contained in this Contract shall be constructed as establishing or creating between the parties, i.e. the Supplier/its Indian Agent/CMC Provider on the one side and the Purchaser on the other side, a relationship of master and servant or principal and agent.

32.2 Any failure on the part of any Party to exercise right or power under this Contract shall not operate as waiver thereof.

32.3 The Supplier shall notify the Purchaser/Consignee /the Government of India of any material change would impact on performance of its obligations under this Contract.

32.4 Each member/constituent of the Supplier/its Indian Agent/CMC Provider, in case of consortium shall be **jointly and severally liable** to and responsible for all obligations towards the Purchaser/Consignee/Government for performance of contract/services including that of its Associates/Sub Contractors under the Contract.

32.5 The Supplier/its Indian Agent/CMC Provider shall at all times, indemnify and keep indemnified the Purchaser/Government of India against all claims/damages etc. for any infringement of any Intellectual Property Rights (IPR) while providing its services under CMC or the Contract.

32.6 The Supplier/its Agent/CMC Provider shall, at all times, indemnify and keep indemnified the Purchaser/Consignee/Government of India against any claims in respect of any damages or compensation payable in consequences of any accident or injury sustained or suffered by its employees or agents or by any other third party resulting from or by any action, omission or operation conducted by or on behalf of the supplier/its associate/affiliate etc.

32.7 All claims regarding indemnity shall survive the termination or expiry of the contract.

SECTION – V

SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract (SCC) will apply for this purchase. The corresponding clauses of General Conditions of Contract (GCC) relating to the SCC stipulations have also been incorporated below.

These Special Conditions will modify/substitute/supplement the corresponding (GCC) clauses. Whenever there is any conflict between the provision in the GCC and that in the SCC, the provision contained in the SCC shall prevail.

SECTION - VI
LIST OF REQUIREMENTS

Part-I

Sch No	Item Name	Department	Qty	Total Qty	EMD
1	ECG Machine- 12 Channels	TB & Chest	1	1	3000
2	Ventilator- High End (I.C.U)	ICU-GYNAE OBSTRICS (06 BEDS)	3	23	1012000
		Anaesthesia - ICU	14		
		CHEST & TB HOSPITAL	2		
		Plastic Surgery	1		
		CARDIOLOGY	1		
		CVTS	2		
3	OT Table	Surgery	1	1	40000
4	Operation Theatre Light with camera	Surgery	1	1	50000
5	Electro-surgical Unit	Plastic Surgery	1	1	14000
6	Anesthesia Workstation	CVTS	1	1	30000
7	Caesarean set	CAESEARIAN OT – 2	4	4	40000
8	Delivery Bed	Labour Unit	2	2	20000
9	ABG	Bio-Chemistry	1	2	20000
		TB & Chest	1		
10	Electrolyte Analyzer	Bio-Chemistry	1	1	10000
11	Blood Mixer and Collector	BLOOD BANK	1	1	6000
12	Video Thoracoscope	CHEST & TB HOSPITAL	1	1	50000
13	PFT Machine (advanced)	CHEST & TB HOSPITAL	2	2	48000
14	Sleep Lab (advanced)	CHEST & TB HOSPITAL	1	1	20000
15	IABP (Intra Aortic Balloon Pump) - High End	CTVS	1	1	36000
16	Sternum Saw (electrically Operated)	CTVS	2	2	16000
17	ACT	CTVS	1	1	5000
18	General Instruments set for ENT Surgery	ENT	5 Set	5 Set	50000
19	Cochlear Implants surgical unit for surgery on profoundly deaf patients	ENT	1	1	4000
20	Electronystagmographic machine	ENT	1	1	12000
21	ENT examination units with motorised patients chairs	ENT	1	1	10000
22	Eye bank Specular Microscope (Eye Bank kerato-analyzer)	Eye	1	1	6000
23	Automated Electrophoresis System with scanner /Densitometer	Microbiology	1	2	20000
		Pathology	1		

24	Equipment Specifications for Deep freezer(-20 deg C)	Microbiology	1	2	12000
		Bio-Chemistry	1		
25	Cytocentrifuge	Pathology	1	1	12000
26	HPLC System	Pharmacology	1	1	50000
27	Thin Layer Chromatography	Pharmacology	1	1	4000
28	Plethysmometer digital ugo basile	Pharmacology	1	1	10000
29	Harmonic Scalpel	Surgery	2	2	92000
30	Basic Plastic/ Rhynoplasty /Cleft lip & Palate surgery instrument set	Plastic Surgery	1	1	12000
31	Stress Test System with TMT	Cardiology	1	1	36000
32	General Surgery Laparoscopic unit	Surgery	1	1	56000
33	PC Based polygraph	Physiology	1	1	12000
34	LEEP SYSTEM with Smoke Evacuator & integrated cart	Gynea & Obst	1	1	20000
35	Cryo Surgical System	Gynea & Obst	2	2	30000
36	Laparoscopic Surgery Set with High Definition Camera	Gynea & Obst	1	1	56000
37	Clinical Endothelial Micrcoscope	Eye	1	1	10000
38	CHART PROJECTION FOR PEDIATRIC PATIENTS	Eye	1	1	3000
39	Synaptophore	Eye	1	1	6000
40	KERATOMETER	Eye	1	1	17000
41	Whole Body combined UV therapy unit	Skin & STD	1	1	8000
42	Hand foot UV phototherapy device	Skin & STD	1	1	4000
43	Multi Application Laser Plateform	Skin & STD	1	1	13000
44	Surgery Instruments	Surgery	1	1	10000
45	O.T Instruments - (Urology)	Urology	1	1	20000
46	Endo Cystoscopy & TURP Set TURP / Cystoscope	Urology	1	1	10000
47	PNCL SET	Urology	1	1	12000
48	FIBER-URETERO-RENOSCOPE	Urology	1	1	16000
49	Gel DOCUMENTATION System (12-BIT)	Microbiology	1	2	88000
		Bio-Chemistry	1		
50	Multi Channel Pipettes	Microbiology	1	2	10000
		Bio-Chemistry	1		
51	Real Time PCR system	Microbiology	1	2	100000
		Bio-Chemistry	1		
52	SINGLE CHANNEL PIPETTES - ADJUSTABLE	Microbiology	1	1	4000
53	Gel Electrophoresis workstation	Bio-Chemistry	2	2	48000
54	Analytical balance	Bio-Chemistry	4	4	24000
55	Spectrophotometer	Bio-Chemistry	1	1	24000
56	Bio-Chemisrty Auto Analyser 16 channel	Bio-Chemistry	2	2	112000

57	Mobile Examination Light based on LED technology (wall mounted - 10) to Examine Patient and One No. Floor mounted for OT.	Gynea & Obst	wall mounted - 10 One No. Floor mounted - Total 11 Nos.	wall mounted - 10 One No. Floor mounted - Total 11 Nos.	55000
58	Cell Counter 5 Part (Automated Haemotology Analyser)	TB & Chest	1	3	168000
		Pathology	1		
		Haemoto-oncology unit	1		
59	MTP Suction for Obst & Gyne Department	Gynea & Obst	2	2	18000
60	Refrigerated Centrifuge	Microbiology	1	3	60000
		Bio-Chemistry	1		
		Pathology	1		
61	Water Purification system	TB & Chest	1	2	20000
		Pharmacology	1		
62	Deep Freezer -80 Deg	Pharmacology	1	1	13000
63	Dead Body Chamber Six bodies	Forensic	1	1	9000
64	PC based spirometer for the measurement of lung volumes & Capacities and diffusion	Physiology	1	1	14000
65	Student Physiograph with 3 Channel with standard accessories	Physiology	1	1	7000
66	Stress Test System with TMT	Physiology	1	1	10000
67	EMG/EP system 4 channels: for recording of the evoked responses & EMG with accessories	Physiology	1	1	10000
68	Autoclave (Vertical)	Pathology	1	1	7000
69	Automated Slide Stainers	Pathology	1	1	10000
70	Automatic Microtome	Pathology	1	1	10000
71	Automatic Tissue Processor	Pathology	1	1	15000
72	Dry Heat Water Bath (Heat Block)	Pathology	1	1	6000
73	Paraffin Tissue Embedding Centre	Pathology	1	1	9000
74	Flow cytometer analyzer	Pathology	1	1	40000
75	Automated Knife Sharpener	Pathology	1	1	4000
76	Table top Micro-centrifuge	Pathology	1	1	8000
77	Semen Analyzer	Pathology	1	1	10000
78	Tissue Floatation Bath	Pathology	1	1	8000
79	Master Cycler Gradient	Biochemistry	1	1	40000
80	Foetal Monitor with central Station	ICU-GYNAE OBSTRICS (6 BEDS)	6+1	18+2	136800
		Labour Room	12+1		
81	Cardiotocography	EMERGENCY GYNAECOLOGY & OBSTETRICS (4 Beds)	1	1	10000
82	Hyterescope, Resectoscope	ENDOSCOPIC OPERATION THEATRE	1	1	40000

83	Conventional surgical operating microscope	ENT	1	1	10000
84	Operating Microscope with Video attachment	Eye	1	1	50000
85	Operating microscope complete unit for surgery and teaching	ENT	1	1	60000
86	Functional endoscopic sinus surgery for advanced surgery of para- nasal sinus disorders	ENT	1	1	60000
87	OCT Machine	Eye	1	1	60000

Part II: Required Delivery Schedule:

a) For Indigenous goods or for imported goods if supplied from India:

90 days from date of Notification of Award to delivery at consignee site. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period).

b) For Imported goods directly from foreign:

90 days from the date of opening of L/C. The date of delivery will be the date of Bill of Lading/Airway bill. (Tenderers may quote the earliest delivery period).

Note: The Purchaser/Consignee reserves the right to extend the delivery period up to one year from the date of NOA at its discretion.

Part III: Scope of Incidental Services:

Installation & Commissioning, Supervision, Demonstration, Trial run and Training etc. as specified in GCC Clause 13

Part IV:

Turnkey (if any) as per details in Technical Specification.

Part V:

Comprehensive Maintenance Contract (CMC) as per details in Technical Specification.

Part VI:

Required Terms of Delivery and Destination.

a) For Indigenous goods or for imported goods if supplied from India:

At Consignee Site – Specified in the List of Requirements

Insurance (local transportation and storage) would be borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery

b) For Imported goods directly from abroad:

The foreign tenderers are required to quote their rates on CIP Named Port of Destination Basis giving break up of the price as per the Proforma prescribed in the Price Schedule. Purchaser will place the order on CIP Named Port of Destination basis.

The shipping arrangements shall be made in accordance with the instruction of Ministry of Shipping & Transport, New Delhi, India as detailed in Annexure 1 at Section XIX.

Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.

Destination/Consignee details are given in Section XXI

Section – VII
Technical Specifications

Schedule - 1

ECG Machine-12 Channels

1 Description of Function

1.1	ECG Machine is primary equipment to record ECG Signal in various configurations. 12 channels with interpretation are required for recording and analyzing the waveforms with a special software.		

2 Operational Requirements

2.1	The ECG Machine should be able to acquire all 12 Leads simultaneously and interpret them		

3 Technical Specifications

3.1	Should acquire simultaneous 12 lead ECG for both adult and paediatric patients		
3.2	Should have Real time display of ECG waveforms with signal quality indication for each lead		
3.3	Should have Artifact, AC, and low and high pass frequency filters.		
3.4	Should have a storage memory of at least 40 ECGs with easy transfer by optional modem and data card.		
3.5	Should have full screen preview of ECG report for quality assessment checks prior to print.		
3.6	Should have interpretation facility of the amplitudes, durations and morphologies of ECG waveforms and associated rhythm for adult and pediatric patients		
3.7	Should have alphanumeric Keyboard for patient data Entry. (virtual or hard keys)		
3.8	Should have High resolution (200 dpix500dpi on 25 mm/sec speed) digital array A4 size printer		
3.9	Should have report formats of 3 x4; 6 x2, Rhythm for up to 12 selected leads; 12 Lead Extended measurements, 1 minute of continuous waveform data for 1 selected lead.		
3.10	Should have battery capacity of at least 30 ECGs or 30 minutes of continuous rhythm recording on single charge		
3.11	Should be able to be connected to HIS /LAN/Wireless LAN(OPTIONAL)		
3.12	Should display ECG on LCD/TFT Display.		
3.13	USB Support (optional) for Storage on external portable memories.		
3.14	Minimum 150 ECG Storage in Floppy or flash memory or any better device.		

4 System Configuration Accessories, spares and consumables

4.1	ECG Machine 12 Leads with Interpretation - 01		

4.2	Patient Cable -02		
4.3	Chest Electrodes Adult-(set of six) -02 sets.		
4.4	Chest Electrodes Paediatric-(set of six) -02 sets		
4.5	Limb Electrodes(set of 4)- 02 sets		
4.6	Thermal Paper A4 Size for 500 patients		

5 Environmental factors

5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		
5.3	Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. or should comply with 89/366/EEC; EMC-directive.		

6 Power Supply

6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		

7 Standards, Safety and Training

7.1	Should be FDA/CE or BIS approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms. (OR EQUIVALENT BIS Standard)		

8 Documentation

8.1	User Manual in English		
8.2	Service manual in English		
8.3	List of important spare parts and accessories with their part number and costing		
8.4	Certificate of calibration and inspection.		
8.5	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		
8.6	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		

Schedule No. – 2

Equipment Specifications for Ventilator-High End (I.C.U)

UNSPSC Code: 42272205
ECRI Code: 17-429

1 Description of Function

Sl	Name		
1.1	ICU ventilators provide artificial respiratory support to the critical patients in the Intensive Care Units.		

2 Operational Requirements

Sl	Name		
2.1	Microprocessor Controlled ventilator with integrated facility for Ventilation monitoring suitable for New born to adult ventilation.		
2.2	Demonstration of the equipment is a must.		

3 Technical Specifications

Sl	Name		
3.1	Standard hinged arm holder for holding the circuit		
3.2	Colour TFT screen, 12 Inch or more		
3.3	Facility to measure and display . a) Integrated End tidal CO2 with capnography. b) Simultaneously display of 3 waves- Pressure and Time, Volume and Time and Flow and Time. c) 3/2 loops- P-V, F-V, P-F with facility of saving for reference. d) Graphic display to have automatic scaling facility for waves e) Status indicator for Ventilator mode, Battery life, patient data, alarm settings, clock etc		
3.4	Trending facility for 24hours with minimum 5 minutes resolution for recent 24 hours		
3.5	Automatic compliance & Leakage compensation for circuit and ET tube		
3.6	Following settings for all age groups.- neonates to adult. a) Tidal Volume b) Pressure (insp) c) Pressure Ramp d) Respiratory Rate e) SIMV Respiratory Rate f) CPAP/PEEP g) Pressure support h) FIO2 i) Pause Time		

	j) Pressure & Flow Trigger		
3.7	Monitoring of the following parameters a) Airway Pressure (Peak & Mean) b) Tidal volume (Inspired & Expired) c) Minute volume (Inspired and Expired) d) Spontaneous Minute Volume e) Total Frequency f) FIO2 dynamic g) Intrinsic PEEP and PEEPi Volume h) Plateau Pressure i) Resistance & Compliance j) Use selector Alarms for all measured & monitored parameters. K) Rapid Shallow breathing index		
3.8	Modes of ventilation a) Volume controlled b) Pressure Controlled (Bilevel/Bipap) with & without pressure support. c) Pressure Support d) SIMV (Pressure Control and volume control) with pressure support e) CPAP/PEEP f) Inverse Ratio Ventilation g) Advanced mode like pressure controlled volume guaranteed h) Non Invasive ventilation with BIPAP facility – (for neonatal mode, NIV should be compatible with nasal prongs with leak compensation) i) APRV j) ACMV MODE		
3.9	Apnea /backup ventilation – for min 2 hours.		
3.10	Expiratory block should be auto-clavable and no routine calibration required		
3.11	Should have the ability to calculate / Procedure a. Intrinsic Peep & Intrinsic PEEP Volume b. Occlusion Pressure c. Spontaneous Breathing trial d. Facility to calculate lower and upper inflection point		
3.12	Inbuilt Nebuliser with capability to deliver particle size of < 3 micron & to be used in both Off and On line		
3.13	Automatic Patient Detection facility preferable		
3.14	Medical Air Compressor. (Price to be quoted separately) a) Stand-alone Medical Air compressor b) Snap fit with the Ventilator module to provide an oil free Medical air. c) Peak output flow should be minimum 160 LPM. d) Air quality should comply with ISO compressed air purity class. e) Medical Air Compressor should automatically activate in the event of wall air supply loss. f) Replacement of internal filters should be performed without removing the compressor g) Should have washable air filter. H) Permissible noise Level <60db.		
3.15	Technical Specifications for reusable face mask & nasal mask.		

	Reusable face & nasal mask with textured dual flap silicone cushion flap for easy fit. Removable forehead support and pad to match the angle of patient's forehead Stability Selector for easy fit and angle. Ball & Socket headgear attachments. Should be autoclavable.		
3.16	Battery back up for minimum 1 hour		
3.17	RS 323C interface for communications with networked devices.		
3.18	Automatic patient detection facility preferable.		

4 System Configuration Accessories, spares and consumables

Sl	Name		
4.1	ICU Ventilator - 01		
4.2	Adult and Paediatric autoclavable silicone breathing circuits – 02 each		
4.3	(a) Reusable Masks (Small, Medium, Large) with each machine. - 02 sets each		
	(b) All Accessories for non invasive ventilation – 2 sets. (c) – Disposable circuit – 50 Nos.		
4.4	Medical Air Compressor. (Price to be quoted separately)		
4.5	Humidifier -Servo controlled with digital monitoring of inspired gas temperature complete with heating wire - 02		
4.6	Filter paper for humidifier for 100 uses - 01		

5 Environmental factors

Sl	Name		
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%		
5.2	Shall meet IEC-60601-1-2: 2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.3	The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name		
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Suitable UPS with maintenance free batteries for minimum two-hour back up should be supplied with the system.		
6.3	Resettable overcurrent breaker shall be fitted for protection		

7 Standards, Safety and Training

Sl	Name		
7.1	Certified to be compliant with ANS/IEC60601.2.12-01 Medical Electrical		

	Equipment—Part 2-12; Particular Requirements for the Safety of Lung Ventilators—Critical Care Ventilators		
7.2	Should be U.S.F.D.A product		
7.3	Certified to be compliant with ISO-7767 for Oxygen monitoring.		
7.4	Should meet IEC 529 Level 3 (IP3X)(spraying water) for enclosure protection, water ingress.		
7.5	Demonstration of quoted equipment model is a must.		
7.6	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
7.7	Comprehensive warranty for 5 years and provision of AMC for next 5 years.		
7.8	Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 years.		

8 Documentation

Sl	Name		
8.1	Certificate of calibration and inspection from factory.		
8.2	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.3	User Manual in English		
8.4	Service manual in English		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of important spare parts and accessories with their part number and costing.		
8.7	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.8	Must submit user list and performance report within last 5 years from major hospitals.		
8.9	Back to back comprehensive warranty to be taken by the supplier from the principal to supply spares for minimum 10 years.		

Schedule No. - 3

Equipment Specifications for OT Table

1 Description of Function

1.1 A dedicated system for surgery,

2 Operational Requirements

2.1 Multi purpose powered OT table, C- Arm Fluoroscopic compatible, suitable for all major surgical procedures, complete with a corded handset with battery level indicators (choice of IR handset should also be available) and moulded, anti-static, seamless mattress.

3 Technical Specifications

3.1 Table should feature of table top with a traverse of minimum of 250 mm or more, either cranially or caudally

3.2 Full length X-ray translucent top with removable & interchangeable head and leg sections with an auto-locking mechanism.

3.3 Table must allow for unrivalled C-arm access and kidney break positioning without the need to move the patient.

3.4 The handset should offer controls for trendelenberg / reverse trendelenberg, lateral tilt, flexion/extension (90/75 degree), longitudinal tabletop traverse and height functions (min. height around 700-800mm and max. height around 1000-1200mm).

3.5 The brakes, wheels and castors should be controlled by one foot pedals provided at either end of the table

3.6 The table should feature an integrated stand by panel for controlling the movements in case of handset loss or battery failure

3.7 The Table stem should be located under the middle of the back section making the tabletop eccentric.

3.8 Table should be able to carry heavy patients and have a capacity of up to 300kgs with an option for width extension of obese patients.

3.9 Table should also be suitable for tall patients and have a length of at least 2000 mm

3.10 Table should offer low minimum height enabling the surgeon to operate even when seated

3.11 The table should have divided leg section with mattresses, arm board & universal clamp

3.12 Should have facilities for manual operations in case of power failures.

4 System Configuration Accessories, spares and consumables

4.1 System as specified

4.2 The table should be supplied with following necessary accessories including knee crutches and price of all under items to be quoted separately:

a. Arm supports – 2

b. Gel heel pads – 1 pair

c. Patient positioning gel strap, 20-25cms – 1

d. Hand Surgery Board – 1

e. Anaesthetic screen with sleeve – 1

f. Lithotomy Poles/crutches with pads – 1 pair

g. Douche tray with strainer to be fixed with table – 1

h. Elevated Arm Support - 1

i. Freddicks Lloyd Davis Stirrups – 1 pair

j. Fluoroscopic compatible Kidney Bridges

k. Padded head, shoulder and arm rest – 1 set each

l. Padded lateral support and shoulder supports – 1 set

m. Appropriate accessories' clamp.

4.3 Table should be quoted alongwith separately with Suitable Chair for the surgeon for endoscopic procedures – 1

5 Environmental factors

5.1 Shall meet IEC-60601-1-2: 2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility or should comply with 89/366/EEC; EMC-directive.

5.2 The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 Battery backup for 3 Hrs operation of table and battery charger

7 Standards, Safety and Training

7.1 Should be FDA/ CE/UL or BIS approved product

7.2 Should have current leakage less than 70 U/A AC (0.07m Amp).

7.3 Manufacturer/Supplier should have ISO certification for quality standards.

8 Documentation

8.1 User/Technical/Maintenance manuals to be supplied in English.

8.2 Certificate of calibration and inspection.

8.3 List of Equipments available for providing calibration and routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.

8.4 List of important spare parts and accessories with their part number and costing.

8.5 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

Schedule No - 4

Specifications for Operation Theatre Light with Camera

1 Description of Function

Sl	Name
1.1	Surgical lights illuminate the surgical site for optimal visualization of small, low-contrast objects at varying depths in incisions and body cavities.

2 Operational Requirements

Sl	Name
2.1	The light should comprise of 2 units, One major dome and one satellite dome. Each unit should have a facility of brightness adjustment from 30 – 100 % . Should be shadow free.

3 Technical Specifications

Sl	Name
3.1	Light System a. Should be LED based microprocessor control technology b. One major dome and one satellite dome. c. Intensity at 1-meter distance 1,50,000 to 1,60,000 lux for major dome and 1,10,000 to 1,30,000 lux for satellite dome. d. Colour Temperature: 3800K - 4800 K Variable e. Having on off switch and light intensity control f. Homogenous luminous field with lowest possible amount of shadow. g. The contrast between the lighted area and the surrounding should not cause stress to the surgeon's eye. h. Depth of illumination should be 120-140 cms. or more. i. Illuminated field diameter should be approx. 20-30 cms. j. Increase in temperature near head should be specified and should not be more than 1 degree C. k. Color rendering index (CRI) should be 93 – 98. l. Height adjustment more than 1 meter. m. LED life span 20000 or more Hrs. n. Light field adjustment by sterilisable handle. o. Control panels on the light assembly as well as away from it for adjustment of light intensity, illuminated area and for switching on and off, focusing etc p. The light head should be so constructed as to provide optimum conditions for laminar flow. q. It should have provision for using it during minimally invasive surgery [\maintaining the correct vision of the screen.
3.2	Camera system: CCD camera having following features a. Resolution 450 lines or more. b. Motorized 36xzoom or more. c. Anti flicker and auto focus. d. Minimum lux 1.5 e. Focal length 4-120mm.

	f. Aperture F 1.6-4.5 g. Location of the camera in the center of the light head inside the handle for easy focusing. h. Foot switch control i. Having output BNC –Composite-USB j. Auto/manual white balance
3.3	LCD Monitor: a. High resolution LCD monitor compatible with the camera system and the recording system b. Size 19 - 26 inch or more diagonally c. Mountable on 3rd arm or wall. d. 3rd arm to hold Monitor on a bracket which can be tilted independently on two separate axis
3.4	Recording System Multimedia Digital recording system for recording on hard disk and portable media with 17" LCD monitor

4 System Configuration Accessories, spares and consumables

Sl	Name
4.1	System as specified

5 Environmental factors

Sl	Name
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%

6 Power Supply

Sl	Name
6.1	Power input: 220-240V/ 50 Hz AC Single phase fitted with appropriate Indian plugs and sockets.
6.2	Suitable UPS with 30Min Backup

7 Standards & Safety

Sl	Name
7.1	Should be FDA ,CE, UL or BIS approved product
7.2	Manufacturer should be ISO certified for quality standards.
7.3	Electrical safety conforms to standards for electrical safety IEC 60601-1 General Requirements (or equivalent BIS Standard)
7.4	Shall meet internationally recognised standard for Electro Magnetic Compatibility (EMC) for electromedical equipment: IEC-60601-1-2 :latest edition Or Equivalent BIS) or should comply with 89/366/EEC; EMC-directive as amended

7.5	Certified to be compliant with IEC 60601-2-41: Particular requirements for the safety of Operation Theatre Light or equivalent if applicable

8 Training

Sl	Name
8.1	Comprehensive training for staff of user department and support services till familiarity with the system.

9 Warranty & Service

Sl	Name
9.1	Comprehensive warranty for 2 years and 5 years Comprehensive Maintenance Service after warranty. The cost of CMC must be quoted in the price bid.
9.2	Percentage of uptime guarantee of the equipment during warranty and CMC period for which commitment is to be given must be specified with acceptance of applicable penalty clauses in case of failure to do so.
9.3	After sales service must be provided in the city of installation. In situations requiring service/repair of the unit outside the city of installation, the expenditure on account of this will have to be borne by the supplier

10 Documentation

Sl	Name
10.1	Product Literature in original along with that of accessories and indigenous components if any. Photocopies/computer generated copies are not acceptable
10.2	Statement of compliance with tender specifications with clear and unambiguous links to relevant portions of product literature/authentic document, which should be highlighted. Alternatives provided for noncompliant specifications with justification must be described in detail with supporting literature.
10.3	Certificate of compliance with standards and approvals stated above
10.4	Certificate of manufacturer/principal regarding authorisation of service facility provided by the supplier
10.5	List of Equipment available in the Service Centre for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
10.6	List of important spare parts and accessories, which are required for maintenance and repair, with their part number and costing.
10.7	Terms and conditions of warranty and CMC including schedules of visit by service personnel with check list of services to be carried out
10.8	Commitment for supply of log book with check list for daily, weekly, monthly and quarterly preventive maintenance with contact details of service personnel along with the equipment. The job description of the hospital technician and company service engineer should be clearly spelt out in the log book.
10.9	List of users of quoted model with performance certificate from major institutions

Schedule No.- 5

TECHNICAL SPECIFICATIONS FOR ELECTRO-SURGICAL UNIT

1 Description of Function

1.1 Electro-surgical units are required to provide cutting and coagulation electrically during surgery

2 Operational Requirements

2.1 A user friendly, Microcontroller-based multi-programmable by the user, isolated Electro surgical generator, designed for all surgical procedure and with Spray mode for Surgery and essential facility of Vessel Sealing system (Comprehensive unit).

2.2 Technical Demonstration of the quoted model(s) is mandatory for technical evaluation and should be done as per the request & guidelines subscribed by the tenderer.

3 Technical Specifications

3.1 Ensure controlled, precise desiccation with less destruction of peripheral tissue

3.2 Permits two surgeons to operate from a single unit & accessories are activated only when keyed, should not get activated inadvertently

3.3 Low voltage coagulation

3.4 Must have three types of cut modes-Low, Pure& Blend

3.5 Must have four coagulation mode

3.6 Maximum output: 350-520 kHz sinusoid 300 watts.

3.7 Power efficiency rating more than 96

3.8 Modes: Both Bipolar (minimum 1 port) and Mono-polar (minimum 2 ports), Mono-polar should have cutting, spray, desiccation and fulguration modes. Each monopolar should have separate output setting.

3.9 Under water facility is essential. Convection cooling system

4 System Configuration Accessories, spares and consumables (unit rate to be quoted for individual items)

4.1 Main Unit -01 No

4.2 Pencil Holder -01 No

4.3 Electrode Blades -10 Nos

4.4 Electrode Needle Fine -10 Nos

4.5 Electrode – Ball point – (3 different sizes- small, Medium & long) – 5 each

4.6 Pencil Switches with hand control -10 Nos disposable, 2 Nos reusable

4.7 2 Foot Control paddle

4.8 chuck handles - 10 Nos disposable, 2 Nos reusable

4.9 Reusable Patient plate with cable – 5 Nos. Disposable patient plate with cable – 100Nos.

4.10 Mobile trolley/cart on castors with brakes -01 Nos

4.11 Power cord of 5 meters length and plug with appropriate rating for standard Indian electrical sockets. -01 No

4.12 Vessel sealing Clamps for both open and Endoscopic surgical procedures – 4 Nos each (Price should be quoted separately)

5 Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%

5.3 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

6 Power Supply

6.1 Power input to be 180-270 V AC, 50 Hz as appropriate fitted with Indian plug

6.2 Resettable over current breaker shall be fitted for protection

7 Standards, Safety and Training

7.1 Patient system should be guaranteed by Return Electrode Contact Quality Monitor System which should automatically switch off the unit together with audiovisual alarms in case of power supply disconnection of the plate in the event of wire break off or loose connection. If the plate is not installed underneath the patient or it has a crack in the system it should not work.

7.2 The supplier should be ISO certified & US FDA Approved.

7.3 Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements

7.4 Certified to be compliant with IEC 60601-2-2 Medical Electrical Equipment Part 2-2: Particular requirements for the safety of High Frequency Surgical Equipments

8 Documentation

8.1 User Manual in English

8.2 Service manual in English

8.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

8.4 Certificate of calibration and inspection from factory.

8.5 Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/ Para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual, will not be considered.

8.6 List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.

8.7 List of important spare parts and accessories with their part number and costing

Schedule No.- 6

Equipment Specifications for Anaesthesia Workstation

1 Description of Function

Sl	Name		
1.1	Anesthesia Workstation is used for delivering anesthesia agents to the patients during surgery. The complete unit also monitors the vital signs and ventilates the patients.		

2 Operational Requirements

Sl	Name		
2.1	1) Anaesthesia machine complete and integrated with Anaesthesia gas delivery system; Circle absorber system; Precision vaporizer for halothane, isoflurane/ Sevoflurane; Anaesthesia ventilator. Monitoring system to monitor Anaesthetic gases, ECG, $EtCO_2$, FiO_2 (Online O_2 Analyzer), Pulse Oximeter and airway pressure, NIBP, IBP (No as required), rectal/&skin temperature. 2) Essential accessories to make the system complete and compatible with the existing system of gas outlets.		
2.2	Demonstration of the equipment as per specifications is a must.		

3 Technical Specifications

Sl	Name		
3.1	Flow management 1. Should be Compact, ergonomic & easy to use 2. Multi-color TFT display of at least 12" size, with virtual flow meters for O2, N2O or Air 3. Dual flow sensing capability at inhalation and exhalation ports. 4. Should have back-up O2 control which provides an independent fresh gas source and flow meter Control in case of electronic failure. 5. Gas regulators shall be of modular design/ graphic display 6. One no. yoke each for Oxygen & Nitrous Oxide. Separate Pipeline inlet for Oxygen, Nitrous Oxide and Air 7. Hypoxic Guard to ensure minimum 25% O2 across all O2-N2O mixtures and Oxygen Failure Warning. 8. Machine should provide electronic gas mixing.		
3.2	Breathing system 1. Latex free fully autoclavable. 2. Flow sensing capability at inhalation and exhalation ports, sensor connections shall be internal to help prevent disconnect. 3. Sensor should not require daily maintenance. 4. Bag to vent switch shall be bi-stable and automatically begins mechanical ventilation in the ventilator position. 5. Adjustable pressure limiting valve shall be flow and pressure compensated.		
3.3	Standard Circle Absorber System - Should have adjustable pressure limiting valve, breathing circuit pressure measuring device.		

	- Should have a bag/ventilator selecting valve integrated onto the absorber. - Should be suitable to use low flow techniques - Facility to attach oxygen sensor. Should have CO_2 absorbent chamber canister		
3.4	Vaporizers 1.New generation Vaporizer must be isolated from the gas flow in the off position and prevent the simultaneous activation of more than one vaporizer. 2.Vaporizer should mount to a Selectatec manifold of 3 vaporizers, which allows easy exchange between agents. Temperature, pressure and flow compensated vaporizers and Maintenance free - for Isoflurane, Halothane, and Sevoflurane		
3.5	Ventilator (Integrated) 1.The workstation should have integrated Anesthesia Ventilator system for adult and paediatric. 2.Ventilator should have Volume Control and Pressure Controlled SIMV and PEEP. 3.Ventilator should have a tidal volume compensation capability to adjust for losses due to compression, compliance and leaks; and compensation for fresh gas flow. 4.The workstation should be capable of delivery of low flow anesthesia. 5.Ventilator should be capable of at least 120-150 L/min peak flow to facilitate rapid movement through physiologic “dead space” in the Pressure Control mode.		
3.6	1.Anesthesia Monitoring System should be modular: a) Monitoring of vital parameters: ECG (5 leads) with ST segment analysis, NIBP, SPO_2 and 2 Invasive Blood Pressure & Spirometry with display of flow volume loops. b) Twin temperature measurement with skin and rectal probes- Two sets with each monitor c) Automatic identification and measurement of anesthetic agents, $EtCO_2$, O_2 and N_2O and MAC value. FiO_2 measurement d) Depth of Anesthesia Monitoring module - one per monitor with 50 sensors with each monitor e) Neuromuscular Transmission Monitoring with all accessories. One set with each monitor f) Cardiac Output measurement facility by thermo dilution technology with all accessories- one set for three monitors. g) 24hrs of graphical and numerical trending h) Should have Hemodynamic, Oxygenation and Ventilation calculation package i) Should include inbuilt Anaesthesia record keeping software facility in all OT monitor to document anesthesia event using standardized menu based entries. j) Facility to store snapshots during critical events for waveform review at a later stage k) Audio visual and graded alarming system 2.Display of Ventilator: a) Tidal volume (VT)) b) Inspiratory/expiratory ratio (I:E) c) Inspiratory pressure (Pinspired) d)Pressure limit (Plimit) e)Positive End Expiratory Pressure (PEEP)		

4 System Configuration Accessories, spares and consumables

Sl	Name		

4.1	Anaesthesia Gas Delivery system -01		
4.2	Circle absorber –01 (Twin Chamber)		
4.3	Ventilator -01		
4.4	Monitor -01		
4.5	Vaporizer Halothane -01		
4.6	Vaporizer Savoflurane -01		
4.7	Vaporizer Isoflurane -01		
4.8	Adult and Paediatric autoclavable silicone breathing circuits -02 ea		
4.9	Reusable IBP Transducer -04		
4.10	Disposable domes-100		
4.11	Temp probe Skin reusable- 02		
4.12	Temp probe Rectal Reusable-02		
4.13	Accessories Anesthetic gases-01 set		
4.14	Depth of Anesthesia Sensors-50		
4.15	Accessories for Cardiac Output module- 01 set		
4.16	Accessories for neuromuscular transmission monitor- 01 set		
4.17	Standard accessories to make all parameters working- 01 set		
4.18	Disposable Adult & Paediatric circuits- 50 each.		
4.19	HME filters- 50		
4.20	Vital Parameter Accessories-01 Set		
4.21	Should be supplied with negative pressure leak test equipment		
4.22	SPO2 resuable probes Adult & Pead – 2 Each		

5 Environmental factors

Sl	Name		
5.1	The unit shall be capable of operating continuously in ambient temperature of 10^0C - 40^0C and relative humidity of 15-90%		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0^0C - 50^0C and relative humidity of 15-90%		
5.3	Shall meet IEC-60601-1-2: 2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.4	Safe disposal system/port of waste anesthetic gases (AGSS Anesthetic Gas Scavenging System/Port) should be in place. Supplier will be held responsible if this is not ensured at the time of installation		

6 Power Supply

Sl	Name		

6.1	Power input to be 220-240VAC, 50Hz,/440 V 3 Phase as appropriate fitted with Indian plug		
6.2	Resettable over current breaker shall be fitted for protection		
6.3	Suitable Servo controlled Stabilizer/CVT		
6.4	UPS of suitable rating shall be supplied for minimum 1 hour backup for the entire system		

7 Standards, Safety and Training

Sl	Name		
7.1	Should be FDA or CE approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Manufacturer should be ISO certified for quality standards.		
7.4	Certified to be compliant with IEC 60601-2-13-Medical Electrical Equipments part 2-13:Particular requirements for the safety of Anaesthesia Workstations		
7.5	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
7.6	All imported components like anaesthesia machine, monitor and ventilator should be from one manufacturer/principal.		
7.7	Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 years.		

8 Documentation

Sl	Name		
8.1	User Manual in English		
8.2	Service manual in English		
8.3	List of important spare parts and accessories with their part number and costing		
8.4	Certificate of Calibration and inspection from the factory		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.7	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual, will not be considered.		

Schedule No. - 7

Caesarean set

Sl. no	Name of the equipment	Specification	Per Set
1	Sponge holding forceps	18 cm/7”	6
2	B.P. Handle no.4	Standard solid	2
3	Dissecting forceps toothed	18cm/7”	3
4	Dissecting forceps plain	16cm/6.25”	1
5	Needle holder	20cm/8”	3
6	Surgeon scissors curved	18cm/7”	2
7	Straight scissors	18cm/7”	1
8	Towel clip	16.5cm/6”	6
9	Artery forceps	19cm/8”	6
10	Kocher forceps	16cm/6.25”	4
11	Allis forceps	15cm	6
12	Green armitage forceps	22cm/8.25”	6
13	S shaped retractor	30cm/12”	2
14	Round retractor	22cm/8.5”	1
15	Right angle retractor	22cm/8.5”	1
16	Kidney tray + 2 10” bowls	Standard size	1
17	Mosquito artery forceps	14cm/5.5”	6

Schedule No - 8

Equipment Specifications for DELIVERY BED

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Delivery bed is used for Baby Delivery and should incorporate ideal blend of the patient's individual requirements on comfort and the professional needs of the delivery team, focusing on the esthetic and functional design of the entire product.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Delivery bed should be supplied with all accessories as mentioned in the technical specifications.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Delivery Bed Should have following essential specifications: 1• It should have control devise for making height and back adjustments.[manual as well as remote control]. 2• It should have collapsible side rails 3• It should have three sectional mattress and seat section should have large perineal cut. 4• It should have head board which can be detached. 5• Should have wheels provided with locking system. 6• Should have retractable foot section so as to convert bed into table. 7• Should have infusion rods which have adjustable heights, quick release and attaches to all corners of bed. 8• Should have adjustable leg rests available as an accessory. 9• Should have push grip handles 10• Should have sliding stainless steel bowl at perineal part of table. 11• It should have catheter bag holder which can be attached on either side of bed. 12• It should be able to give trendelenburg, reverse trendelburg and 70 degree		

	sitting position both mechanically and electronically. 13• It should have adjustable foot supports for nursing staff 14• It should be easy to clean, sterilize (especially blood stains) and maintain. 15. Frame should be of epoxy powder coated steel 16.Dimensions - Length 6feet and width =2 and half feet.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	All consumables required for installation and standardization of system to be given free of cost.		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. or should comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10-40 deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA/CE or BIS approved product		

7.2	Manufacturer should have ISO certification for quality standards.		
7.3	Comprehensive training for lab staff and support services till familiarity with the system.		
7.4	Comprehensive warranty for 2 years and 5 years CMC after warranty including UPS.		
7.5	Electrical safety conforms to standards for Electrical Safety IEC 60601-2-38 Particular safety requirements for Electrically operated hospital beds.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.3	Certificate of calibration and inspection.		
8.4	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.5	List of important spare parts and accessories with their part number and costing.		
8.6	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		

Schedule No. - 9

ABG & Electrolytes Analyzer

A fully automatic, fast, precise blood gas analyzer with following features:
1. Measured parameters: pH, PCO2, pO2, Cl, Na, K, Ca & Mg.
2. Calculated parameters: Std. pH, pCO2, pO2, CH+, HCO3, Std.HCO3, O2 Sat, BEX, BEecf, BB, O2 content, TCO2, all at patient's temperature
3. Sample size: Not more than 100 ul
4. Throughput: 40 samples per hour
5. Readout time: Less than 1 min.
6. Printer: In-built with preferably non-thermal paper
7. Calibration: Automatic in cycle system
8. Display: Digital display on the screen
9. Electrodes: Maintenance free with shelf life not less than 1 year
10. Memory: More than 100 patients memory
11. Warranty: Comprehensive Warranty including electrodes.

Schedule No. - 10

Equipment Specifications Electrolyte Analyzer

UNSPSC Code: 41115807
ECRI Code: 16-298

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	For analysis of Electrolytes in serum, plasma, urine and body fluids.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	System should measure Na, K, Cl, Ca, Li		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

3.1	System should measure Na, K, Cl, Ca, Li.		
3.2	Facility for auto sampler tray for constant loading. Sample can be fed by capillary syringe or sample tube directly		
3.3	Sample volume should be less than 100 micro-liters.		
3.4	Auto Calibration Facility and provision for economy mode.		
3.5	Quality control facility		
3.6	Facility of flagging of abnormal results and user programmable ranges.		
3.7	Stand by mode: user controlled and automatically controlled		
3.8	Memory for last 100 messages.		
3.9	Built in printer for printing the data.		
3.10	RS.232.C (standard serial port) should be available		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	ISE Analyser-01		
4.2	Na, K, Ca, Li, Cl Electrodes- 02 each (1 standard and 1 spare)		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.2	Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%.		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Resettable overcurrent breaker shall be fitted for protection		
6.3	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Certified for meeting IEC 60601-1-4 Medical electrical equipment - Part 1-4: General requirements for safety - Collateral Standard: Programmable electrical medical systems		
7.2	Attach original manufacturer's product catalogue and specification sheet. Photocopy/ computer print will not be accepted. All technical data to be supported with original product data sheet. Please quote page number on compliance sheet as well as on technical bid corresponding to technical specifications.		
7.3	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.4	Should be FDA or CE approved product		
7.5	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	Certificate of calibration and inspection from factory.		
8.2	User manual in English		
8.3	Service manual in English		
8.4	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
8.5	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

Schedule No. - 11

Equipment Specifications for BLOOD MIXER AND COLLECTOR

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	The system is used to collect donated blood from the donor at the same time mixing the blood for quality collection of blood.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	It is meant for stationary and mobile use. Gentle end to end mixing and control of collection time to give high quality blood (platelets). Suitable for all blood bags on the market. Automatic check on blood flow and collection time with buzzer alarm. Shall continuously display collected volume, flow and time during collection. Shall provide repetitive notification of completed collection every minute including gentle mixing to avoid coagulation		
2.2	Should be advanced technologically and modern blood collection scale and mixer. It should be light weight & portable		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Volume Setting: Pre-selection of volume to be collected. ¬Tarring of bag volume before collection. Tarring range: 0 – 600 g. Automatic storage and recall of set volume. Measure volume with best accuracy		
3.2	Indications and Alarms 1.LED indication on commencement of collection. 2. LED indication and audible alarm at the end of collection. 3. Indication of time taken for collection. 4.Indication of blood flow with audio alarm when blood flow is higher or lower than desired. Continuous display of collected volume, flow and time during collection		
3.3	Automatic clamping at termination of preset volume collection		
3.4	Automatic release of bag when lifted.		

3.5	Continuous agitation of blood bags during collection: 12 – 16 rpm.		
3.6	Easy provision to change preset volume.		
3.7	Should operate on mains as well as rechargeable battery. On battery it should operate for a minimum of 5-8 hours.		
3.8	Should be less than 5 Kg		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	Blood Mixer & collection unit-01		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 - 400 C and relative humidity of 15-90%		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -500 C and relative humidity of 15-90%		
5.3	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz,/440 V 3 Phase as appropriate fitted with Indian plug		
6.2	Resettable over current breaker shall be fitted for protection		
6.3	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA/ CE or BIS approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		

7.3	Manufacturer should have ISO certification for quality standards.		
7.4	Protection type class B		
7.5	Comprehensive warranty for 3 years and 7 years AMC/CMC after warranty		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User manual in English		
8.2	Service manual in English		
8.3	List of important spare parts and accessories with their part number and costing		
8.4	Certificate of Calibration and inspection from the factory		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		

Schedule No. - 12

Equipment Specifications for Video Thoracoscope

UNSPSC Code: 42294800
ECRI Code: 14-047

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	A thoracoscope is a thin, tube-like rigid endoscope instrument with a light and a lens for viewing.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Thorcoscope with video processing and monitoring is required		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	SPECIFICATION OF SCOPE: 1. Direction of view should be zero degrees. 2. Minimum of 100 degrees (approx) field of view. 3. Range of observation from 5 mm to 90 mm (approx). 4. Angulations of tip not less than 200 deg Up and 90 deg Down, with Right to Left movement of minimum 100 deg (approx). 5. Insertion tube outer diameter of less than 8 mm with a working length of not less than 250 mm. 6. Distal end of less than 8 mm. 7. Instrument channel of more than 2.5 mm. 8. Compatible with the video system specified.		
3.2	Video processor with light source and Monitor: 1. Power supply 200-240 V A/C 2. PAL type video signal. 3. Controls for colour adjustment, to enhancement and balance settings. 4. Controls to freeze images, enhance a portion of frozen image (zoom and post-processing). 5. Patient and physician data input keyboard. 6. Operates on 300W Xenon lamp. 7. Emergency lamp (Halogen). 8. Compatibility with the Gastroscope, Colonoscope, Duodenoscope and Enteroscope. 9. 15" LCD/TFT Medical Grade colour monitor.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	System as specified		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 - 40 deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	UPS of suitable rating with voltage regulation, spike protection and maintenance free batteries for 60 minutes back up		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA / CE or BIS approved product		
7.2	Shall be certified to be meeting safety standard IEC 60601-2-18 part 2 Particular requirements for the safety of endoscopic equipment.		
7.3	Manufactures/Supplier should have ISO certificate to Quality Standard.		
7.4	Comprehensive warranty for 2 years and 5 years AMC after warranty		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection.		
8.3	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.		
8.4	List of important spare parts and accessories with their part number and costing		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		

Schedule No. – 13

Equipment Specifications for PFT Machine(Advanced)

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Pulmonary function tests are a broad range of tests that are usually done in a health care provider's office or a specialized facility. They measure how well the lungs take in and exhale air and how efficiently they transfer oxygen into the blood.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	System should be supplied complete with printer.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	1. The following tests should be performed by the PFT Equipment. a. It should measure FEV , FVC, PEF, SVC,FEV %, MMEF, PIF, MVV,FRC, 1 1 RV, TLC, FET, ERV, IRV, PiMAX/PeMAX b. DLCO, BRONCHIAL PROVOCATION TEST 2. Predicted value- depends upon national preference 3. Multi window lay out 4. Configurable print out format 5. Real time flow volume and volume time traces 6. Overlaying of previous test curves for comparison 7. Open & Closed flow/volume loop test technique possible		

	8. Powerful search capability 9. Storage- 1000 patients' tests including flow/volume loops and volume time curves. 10. Should have networking support		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
	None		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of operating continuously in ambient temperature of 20-30 deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	UPS of suitable rating with voltage regulation,spike protection and maintenance free batteries for 60 minutes back up		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA, CE, UL or BIS approved product		
7.2	Manufacturer should have ISO certification for quality standards.		
7.3	Comprehensive training for lab staff and support services till familiarity with the		

	system.		
7.4	Comprehensive warranty for 2 years and 5 years CMC after warranty including UPS		
7.5	Electrical safety conforms to standards for electrical safety IEC 60601-1 (OR EQUIVALENT international/national standard)General requirement for Electrical safety of Medical Equipment.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	List of important spare parts and accessories with their part number and costing.		
8.3	Certificate of calibration and inspection.		
8.4	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		
8.5	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.6	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		

Schedule No. - 14

Sleep Lab (Advanced)

1 Description of Function

1.1	Sleep lab system is required to study the sleep disorders by recording and analyzing the parameters like EEG, SPO2 ETC when the patient is sleeping.

2 Operational Requirements

2.1	The sleep system is required with all the equipments and computer with analysis software with printer

3 Technical Specifications

3.1	SPECIFICATIONS OF SLEEP SYSTEM (1) Ambulatory polysomnography with 26 channels and upto 8 of these should be EEG , should be light and compact. The basic unit should not be more than 500 gm. including batteries. (2) Should have latest touch screen for device configuration , impedance measurement and signal control. (3) Following parameters should be recorded ; (a) 8 AC signals for EEG,EOG,EMG,ECG and IC-EMG. (b) flow by using a thermistor (nasal-oral) or using a nasal cannula. (c) Effort should be measured using piezoelectrical sensors. (d) Pulse frequency and oxygen sensor should be measured with a finger clip attached to the interval pulse oximeter. (e) Snoring detected by a microphone. (f) Body position (back,stomach,left,right) by means of an integrated body position sensor in the patients yoke box. (g) Estimation of sleep and wake phases should be measured using accleration sensor attached to patient wrist. (h) Light sensor integrated in the base unit to measure actual time in bed. (i) NCPAP/BiPAP pressure and flow. (j) Possibility for software to generate a sum of both effort signals, and heart frequency generated from ECG. (k) Necessary signals (EEG, EOG.EMG) required for sleep staging should be bundled into one cable/plug harness. (l) Sleep Stage Analysis should be based on criteria of R & K. The average frequency value of the central EEG lead should be calculated, sleep spindles, K-complexes, REMs and movement arousals should be detected and displayed.

	(m) The displayed amount of sleep interruption within specific time intervals should provide information about the disorder of sleep architecture. (4) Should have built – in pulse oximeter, display should be 120 x 64 pixel b/w , touch screen memory = PCMCIA or compact flash card , 96 MB memory , optional 160 MB. Pulse Oximeter – 75% - 100% Range (5) 7 aux. Channels to connect to external sources like PH , et CO2 , temperature , Oesophagus pressure , NPT etc. (6) Software based on windows platform and after transferring the data to PC , the data should be analyzed automatically with a clear over view of the final result. (7) Computer assisted analysis or even complete manual evaluations should be possible. The analysis software should also evaluate measurements of children and infants taken specific aspects such as periodic breathing into consideration. (8) The yoke box incl. Integrated body position sensor should not be more than 250 gms. (9) Internal storage of raw data and automatic gain adjustment for perfect amplification of the respiratory signals should be possible. (10) Computer specification :CPU Pentium Core 2 Duo 2.7 GHz and above;512 MB RAM;1.44 MB Floppy drive;120 GB Hard Disk Drive; High Speed DVD/CD Rom 52 X: Serial .USB and parallel ports ;Keyboard (IOS) , Mouse and Mouse Pad; Preloaded latest MS Windows Versions;LD/TFT SVGA Monitor size 17";Inkjet printer; Modem 56K;latest anti-virus SOLOMAN & NORTON..		

4 System Configuration Accessories, spares and consumables

4.1	System as specified		
4.2	All consumables required for installation and standardization of system to be given free of cost.		

5 Environmental factors

5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. or should comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%		

6 Power Supply

6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.		

7 Standards, Safety and Training

7.1	Should be FDA/CE/UL or BIS approved product		

7.2	Manufacturer should be ISO certified for quality standards.
7.3	Shall be certified to be meeting the safety standards IEC- 60601-2-26 PART 2: Particular requirements for safety of EEG Systems.

8 Documentation

8.1	User/Technical/Maintenance manuals to be supplied in English.
8.2	Certificate of calibration and inspection.
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.

Schedule No. - 15

IABP (Intra Aortic Balloon Pump) - High End.

1 Description of Function

1.1 Intra-aortic balloon pump (IABP) is a mechanical device that is used to decrease myocardial oxygen demand while at the same time increasing cardiac output. By increasing cardiac output it also increases coronary blood flow and therefore myocardial oxygen delivery.

2 Operational Requirements

2.1 Microprocessor / microcontroller based system. System should be complete with Display Control system and pneumatic drive unit.

3 Technical Specifications

3.1 Pneumatics:

Drive system: Stepper motor driven bellows

Drive gas- Helium (Available with disposable canister or refillable cylinder.

Pumping Volume: 0.5 cc-50 cc Counter pulsation rate: 40-200 pulsations per minute

3.2 In Automatic Mode: System should be capable of automatically selecting appropriate trigger i.e. ECG or Pressure and also accurately select the inflation and deflation points, in automatic mode. In automatic mode of operation user should be in control of the deflation point. In Automatic mode Advance software should automatically adapt the timings for various rhythms and rate variations, without any user intervention. In Automatic mode it should automatically identify Arrhythmias and adopt R wave deflation mode for better patient support, without any user intervention In Manual mode the system allows user control of most of the pump functions.

3.3 Should be able to trigger on 7 mm Hg of Pulse pressure when used in Pressure Trigger mode

3.4 Single key start-up to make it fast, user friendly and easy to use

3.5 Should be able to display at least 3 wave forms as ECG, Invasive Pressure and Balloon Pressure wave forms

3.6 Large display for brighter and very good visibility from a distance in lighting conditions

3.7 On screen indication for Helium level in the cylinder and battery level for timely intervention and correction.

3.8 ECG inflation marker to indicate inflation period on ECG which can be useful when arterial pressure form is not available.

3.9 On screen indication of standby time and should give alarm after 15-30 minutes, to draw user's attention on the system being on standby

3.10 System should be approved for use on Paediatric patients and Paediatric balloons should be supplied with the system.

3.11 Optical Blood leak detect for early indication of blood coming into the balloon lumen due to IABC leak

3.12 Should have extensive Help Text available during start-up to make the system easy to use even for new users.

3.13 Should give extensive Help messages to correct the alarm conditions that are specific to the alarm condition. This should help the user to overcome the alarm problems immediately and with ease.

3.14 Should be capable of removing condensation automatically without user intervention and should be maintenance free.

3.15 Should have Peripheral Vascular Doppler for detecting limb ischemia, which is attached to the main equipment

3.16 Should have automatic Altitude correction to make it safer for the use during Air Transport

3.17 Should have software which allows the user to monitor the IABP from any remote location via a modem

3.18 In-built Comprehensive Service Diagnostics to help the technician to locate the fault immediately

3.19 Should have capability to connect on the Hospital network

3.20 Integrated Printer OR Chart recorder to print the reports.

4 System Configuration Accessories, spares and consumables

4.1 System as specified-

4.2 System should be supplied with the following:

ECG cable with Refillable Helium cylinder compatible with the IABP system Qty: 3 Nos.

4.3 Intra Aortic Balloon Catheter for Adults, Size: 40 cc Qty: 2 Nos.

Intra Aortic Balloon Catheter for Adults, Size: 30 cc Qty: 2 Nos.

Intra Aortic Balloon Catheter for Paediatrics, Size: 12 cc Qty: 1 No

Intra Aortic Balloon Catheter for Paediatrics, Size: 10 cc Qty : 1 No

Reusable Invasive Blood pressure transducer system with pressure flush device system. Qty: 2 Nos.

5 Environmental factors

5.1 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. Or should comply with 89/366/EEC; EMC directive.

5.2 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity

5.3 The unit shall be capable of operating continuously in ambient temperature of 10 -40 deg C and relative humidity of 15-90%

6 Power Supply

6.1 Power input to be 170-270 V AC, 50Hz fitted with Indian plug

6.2 On line UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.

7 Standards, Safety and Training

7.1 Should be FDA/ CE/UL or BIS approved product

7.2 Manufacturer/Supplier should have ISO certification for quality standards.

8 Documentation

8.1 User/Technical/Maintenance manuals to be supplied in English.

8.2 Certificate of calibration and inspection.

8.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

8.4 List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.

8.5 List of important spare parts and accessories with their part number and costing.

Schedule No. - 16

Sternum saw (Electrically Operated)

The system should contain the following features:

1. Electrically operated motor control unit with forward and reverse speed motor.
2. Power cable with motor working with the power supply 220-240 VAC 50Hz
3. Should contain a foot control paddles with waterproof and anaesthetic agent proof. 130x200x60 mm
4. Sternal saw with first time and redo (Oscillating) blades, Light weight with blade protector, saw cable connector for both blades
5. Overheating cut off of motor with reset facility.
6. Additional blades 10each of normal and redo (Oscillating)
7. Saw should be in all respects complete and ready to use
8. Flexible cable with minimum 180 cm in length.
9. Should provide minimum1 Nos. of sterile micro oil 300 ml
10. Should be ETO/Autoclavable
11. Motor should drive through a flexible cable.

Schedule No. – 17

Equipment Specifications for ACT Machine

1 Description of Function

1.1 Activated Clotting Time (ACT) is a measure of the anticoagulation effects of heparin. The main use of this diagnostic test is in cardiac catheterization labs and open heart and vascular surgery, where they need to keep track and have specific measures of clotting times.

2 Operational Requirements

2.1 One button operation, easy to use

2.2 Portable system

3 Technical Specifications

3.1 ACT machine having at least one test well

3.2 2 point clot detection facility to get accurate results (Optional).

3.3 Parameters- ACT (Mandatory), APTT & PT (Optional).

3.4 Shall use fresh blood at the bedside.

3.5 Shall require less than 3 cc of blood per sample

3.6 Digital Display on Screen of any size.

4 System Configuration Accessories, spares and consumables

4.1 System as specified-

4.2 ACT Tubes - 200 nos

5 Environmental factors

5.1 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility, Or should comply with 89/366/EEC; EMCdirective.

5.2 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

5.3 Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%

6 Power Supply
6.1 Should work on 180-270V AC as well as batteries. Mains adaptor to be supplied
7 Standards, Safety and Training
7.1 Should be FDA , CE,UL or BIS approved product
7.2 Comprehensive warranty for 2 years and 5 years AMC after warranty
7.3 Manufacturer/Supplier should have ISO certification for quality standards.
8 Documentation
8.1 User/Technical/Maintenance manuals to be supplied in English.
8.2 Certificate of calibration and inspection.
8.3 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

Schedule No. – 18

General Instruments Set for ENT Surgery

Instruments for ear surgery

S.no.	Requirement	Quantity
1	Tumarkin tapered slotted aural speculum (set of four)	5 Sets
2	Rosen aural slotted speculum	5
3	Holmgren self retaining aural speculum	5
4	Eustachian catheter	15
5	Formby cerumen scoop and hook	50
6	Wilde aural forcep (angled forcep)	15
7	Fagge aural bayonet forcep	5
8	Adson forcep with 1x2 teeth	5
9	Hartmann aural forceps long shape 15 cm	5
10	Ossicle holding forcep	5
11	Tilley aural forcep	10
12	Lempert endaural speculum right/left	5
13	Plaster self retaining retractor 2x2 prongs	10
14	Wullstein self retaining retractor 3x3 prongs	10
15	Wulldtein self retaining retractor 4x4 prongs	10
16	Plester Jansen retractor solid blade left/right	10
17	Glegg aural snare	10
18	Jansen chisel	5
19	Jansen Osteotome(2mm,4mm,8mm)	5
20	Lempert mastoid curette(1mm-5mm,5 sizes)	5 Size 5 each
21	Kerrison punch upward cutting	5
22	Homoe graft press forcep	5
23	Mastoid suction tube(1,2,3,4)	5 each x 4 Sizes
24	Verhoeven suction tube SWG 14-24	5 Sets
25	Verhoeven suction tube holder	5
26	Micro aural forceps serrated(micro straight,micro 1x2 teeth)	5
27	Micro aural forceps serrated 2mm micropipe straight	5
28	Micro aural cup forceps (straight,left curved,right curved,upwards)	5

29	Micro aural scissors(fine straight,left curved,right curved and upward)	5	
30	Teflon piston holding forceps	5	
31	Teflon piston introducing forceps		5
32	Grommet tube inserter		10
33	House dieter malleus punch forceps	10	
34	House dieter malleus nipper(up and down)	5	
35	Caw thorne hooks		5
36	Stapedectomy set(set of 9)	4 Sets	
37	Zoellner set of 7 instruments: 1. raspatory fine curved left and right 2. needle spear pointed fine,curved,left and right 3. knife upward cutting and downward cutting 4. small hook	5 Sets	
38	Hanging drill with cable and foot switch		5
39	Bur's set		5
40	Sickle knife	10	
41	Myringotomy knife	10	
42	Ball probe		10
43	Circular and straight knife		10
44	House curette double end	10	
45	Rosen drum elevator		10

Instruments for tonsillectomy - Each 4 item

1. Tongue depressor
2. Birkett tonsil artery forcep straight
3. Birkett tonsil artery forcep curved
4. Negus tonsil artery forcep V shaped curved
5. Tonsil scissor straight
6. Tonsil holding forceps
7. Tonsil needle holder
8. Peritonsillar forceps
9. Eve tonsil snare
10. Tonsil dissector with anterior pillar retractor
11. Negus pusher knot tier
12. Tonsil suction tube
13. Waugh tonsil dissection forceps
14. Jennings mouth gag
15. St. Clair Thompson adenoid curette with guard
16. Boyle Davis mouth gag with tonsil plates
17. Tonsil holding forceps
18. Tongue holding forceps
19. Towel forceps
20. Towel clips(cross section)

Tracheostomy set - Each- 5 items

1. Magill intyratracheal catheter forceps
2. Tracheal wound dilating forceps

3. Langen Beck retractor
4. Tracheal retractor 2 prong blunt
5. Tracheal retractor 1 prong sharp/ blunt
6. Artery forceps (curved,straight)
7. Blade handle
8. Macintosh laryngoscope with 4 blades
9. Jackson / Fuller tracheostomy tubes

Schedule no. - 19

Cochlear Implant Surgical Unit for surgery on profoundly deaf patients)

Specifications:

i. keeter drill for Cochleostomy---2 nos
ii. Benair micro motor----------2nos
iii. Facial nerve monitor----------1 no
iv. Two sets of micro ear surgery instruments-2 sets
v. Laser CO2 Lumens surti touch----1 no

Schedule no – 20

Eletronystagmographic machine

High quality ISO certified.
With sensitivity of 105 images per second binocular, 174 images per second monocular.
Goggle with one camera and goggle with two cameras (non occluded and occluded view).
Able to perform all vestibular tests including smooth pursuit test (tracking)
Compatible with latest windows software
Laptop with minimum 1.8GHz, 2GB DDR3 RAM, 160GB hard disk with resolution of 1024x768 resolution or better
Rotary chair, irrigation for water and air included.

Schedule no. – 21

ENT examination units with motorised patient chairs

Specifications:

- User friendly design harbouring common ENT instruments in a tray with suitable cover.
- Facilities to attach additional; items such as endoscopes, suction, irrigation facility & microscope non over flow system in the bottle of suction
- Power consumption: 150-300W approx

- Voltage: 220V/60Hz
- Compressor pump: 1.5 kg/squ.cm
- Anti-fog device: 500W (approx)
- Suction pump: 3000cc
- Light source: 150W X 24V
- Standard accessoiries:
- Head light with adjustable head band (halogen) with suitable fibro-optic cable
- Spray-2
- Suction-1
- Waste receptacle-1
- Medicine bottles-6
- Instruments tray-2 or 3
- Pen light -1
- Anti fog-1
- Patient chair: Electrically operated ENT examination cum treatment chair electrical/ hydraulic height adjustment lift 20cms, with foot switch control. The upper part of the chair should be swivelling all around and fixable by a brake. The tall back rest is adjustable forward beyond vertical line and backward adjustable to varying degree to the desired position even slightly more than horizontal line- changing into a long and stable couch. The arm rests should be sturdy and can be swivelled off backwards

Width: 60cms (approx)
Height: from upper edge of the back rest to the lowest position 1230cms (approx)
Height of the seat: 50-70 cms (approx)
Depth of the seat: 40cms (approx)
Depth total: 75 cms (approx)
Power supply: 220V/50Hz

- Doctors chair: Pneumatic foot operated with 4 or 5 wheels (castor) with break

Schedule No. - 22

Eye bank Specular Microscope (Eye Bank kerato-analyzer)

Required for evaluation of Donor Cornea in the Eye Bank
Specifications:-
Type: Non-Contact objective lens
XYZ stage alignment and rocking (swivel) alignment
Analysis method: - centre method, flex-center method, variable frame method, crossing method and digital method to analyze cells.
Field of view of 450µm x 500µm
Slit width 0.2 mm width slit for wide field imaging
0.1 mm width slit for higher resolution and better contrast
Pachymetry: - Built in digital micrometer enable measurements of corneal thickness.
Multi container holder
Having high resolution CCD camera and compatible analysis computer, LCD Monitor, UPS with software
Illumination: Halogen lamp
Video output
Photo-Printer
Table for the main unit
Table for computer
The product should be CE certified/USA FDA approved

Schedule No. - 23

Automated Electrophoresis System with scanner /Densitometer

Required to carry out electrophoresis based special assays on patient samples for a super speciality hospital which charges the patients. This has to cater to the needs of a complete onocology and nephrology set up.

I. Automated electrophoresis system for hospital clinical laboratory,

Featuring

- Automated electrophoretic run , drying staining and de-staining
- System machine should use Cellulose Acetate or Agarose strips as Matrix for Electrophoresis and separate strips and kits for Immunofixation.
- Should have two sample applicators made of special stainless steel.
- Automated control of voltage, time and current
- Gel temperature control with peltier effect
- Facility to separate serum proteins, haemoglobin, lipoproteins, CK, LDH & Alkaline phosphatase isoenzymes
- Facility for immunofixation
- Facility to store at least 30 application protocols
- Facility to run serum, urine & CSF samples without prior dilution or concentration
- Alarm for level sensing, timer and doors
- Samples for one gel should not exceed 10
- Equipment must not have any water sources or pumps.
- Migration Chamber should be monobloc with carbonium electrodes and should be able to give uniform distribution of current on the full strip.
- Should have multireagent (atleast 7)independent tanks.
- Process Control System should be guided by electromagnetic heads with optical sensor built in the Head.

II. Densitometer (or) Gel scanner with the necessary accessories and software

Either of these with the following features to be procured along with electrophoresis system

- Scanning & processing all gels including those specified above
- Facility to store the scanned image of the gel
- Facility for curve editing and entry of patient demographics
- Availability of quantification and quality control features
- Storage of patient data and results – upto a minimum of 10000 samples
- Facility to generate a comprehensive report containing patient demographics, scanned image of the gel, curve and quantification data

III Software upgradation to be provided free of cost upto 5 years

IV All necessary standard accessories like those required for sample application to be provided along with the instrument.

V 3 years warranty inclusive of spares and accessories from the date of installation followed by Comprehensive maintenance (inclusive of spares) @ 5% of the cost of equipment form 4th to 7th year

VI Suitable PC with colour ink jet printer to be provided along with the equipment.

VII Online UPS suitable for the entire system with 30 minutes back up.

VIII One set of standard spares

IX Two kits of serum protein electrophoresis, one kit each of Lipoproteins, and isoenzymes of LDH and alkaline phosphatase to be provided as starter kits

Schedule No. - 24

Equipment Specifications for Deep freezer(-20 deg C)

UNSPSC Code: 41103010
ECRI Code: 15-145

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Deep Freezers are required to preserve blood and blood products, vaccinations etc at specified temperature.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Vertical Freezer, at least single door with adjustable 6 to 8 shelves (frost free)		
2.2	Separate Chamber racks to be pulled out for easy handling		
2.3	Non-CFC refrigerant		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Capacity within 400 to 450 L		
3.2	Digital display of set and actual temperature, with audiovisual alarm		
3.3	No condensation on storing material with automatic electric defrost		
3.4	Construction: Solid rust free cabinet to prevent corrosion and lockable castor wheels.		
3.5	Refrigeration System Heavy Duty refrigeration system, maintenance free, below -20 deg C ($\pm$ 1^0C) cascaded connection with hermetically sealed refrigeration compressors and reliable refrigeration to minimize noise and vibration, air cooled with security lock to prevent unintentional switch off shall be supplied. It should have maximum cooling time hours at maximum ambient temperature of 33deg C. The equipment should be of continuous duty and frost free.		
3.6	Alarm It should also have audio visual Electronic Alarm System independent of power supply.		
3.7	Insulation High density polyurethane or equivalent Gaskets - Double seal silicon.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	As specified		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Suitable Servo controlled Stabilizer/CVT		
6.3	Resettable over current breaker shall be fitted for protection		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA or CE or ISI approved product		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

8.1	User manual in English		
8.2	Service manual in English		
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. As per manufacturer documentation in service/technical manual.		
8.4	Certificate of calibration and inspection from factory.		
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
8.6	List of important spare parts and accessories with their part number and costing available in stock with the supplier.		

Schedule No. - 25

Equipment specification for Cytocentrifuge

1. Description of function:

1.1 A cytocentrifuge, which operates at a speed of between 500 and 2000 rpm, forces the cells from a suspension onto a microscope slide and a blotter simultaneously, absorbs the suspension medium. Cyto evaluation of cells under microscope

2. Operational requirements:
2.1 Latest model microprocessor controlled compact centrifuge with sealed rotor head for separation of cells found in body fluids. Cells are directly attached in a monolayer to a microscope slide by means of centrifugal force and a slide and funnel device

3. Technical specification:
3.1 Speed range at least: 500-2000rpm
3.2 Time range at least: 1-60 minutes
3.3 Number of specimen can handle up to 12 samples in one cycle
3.4 Memory to store 20 percent procedures
3.5 There should be a membrane keypad with bright LCD/LED display of time, speed and program controls.
3.6 Audio visual alarm for out of balance, outside speed tolerance or if the lid is not properly locked. The system will not run if the lid is not locked properly.
3.7 Specimen chamber capable of handling low volumes and high volumes.

Prices should be quoted separately

4. (1 case each) consists of
1ml fluid chamber – 50nos
1ml base holder – 50nos
1ml chamber cap – 50nos
6ml fluid chamber – 50nos
6ml gasket – 50nos
6/12 ml base holder – 50nos
6/12 ml chamber cap – 50nos

12ml fluid chamber – 50nos
12ml gasket – 50nos
SS cyto clips- 2 packs each containing 6 nos.
Filter cards – 50 boxes each containing 200nos

5. Environmental factors:
5.1 The unit shall be capable of stored continuously in ambient temperature of 0-50 deg C and relative humidity of 15-90%
5.2 The unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%

6. Power supply:
6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug.
6.2 Reset table over current breaker shall be fitted for protection.
6.3 Suitable voltage corrector/ stabilizer

7. Standards and safety:
7.1 Should be compliant with IEC 61010-1: covering safety requirements for electrical equipment for measurement control and laboratory use.
7.2 Should be FDA or CE approved product.
7.3 Comprehensive training for lab staff and support services till familiarity with the system.

8. Documentation:
8.1 User/technical/maintenance manuals to be supplied.
8.2 Certificate of calibration and inspection from factory.
8.3 List of equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service/ technical manual.
8.4 List of important spare parts and accessories with their part number and costing.
8.5 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.
8.6 Compliance report to be submitted in a tabulated and point wise manner clearly mentioning the page / para number of original catalogue

Schedule No. - 26

Equipment Specifications for HPLC System

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	High-performance/Pressure liquid chromatography (HPLC) is a form of column chromatography used to separate components of a mixture by using a variety of chemical interactions between the substance being analyzed (analyte) and the		

	chromatography column.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	System should be complete with columns, binary gradient pump, mixer, detector along with state of the art PC with software for chromatography management		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Binary gradient pump: (2 no) Integrated binary gradient system with dual piston pump (2 nos) with automatic plunger cleaning system. Flow precision 0.1% RSD. Programmable flow rate range from 0.001 to 10 ml/min with 0.01 ml/min increments. Composition accuracy ± 0.5%. precision:< 0.5% RSD. Maximum pressure: 6000psi at all flow rates. Safety and maintenance aids: extensive diagnostic error detection and display. No of eluents: 2. Flow accuracy± 1%. Software programmable high and low pressure limits. Software initiated purge functions. Delay volume: < 200 µl. Built in Master/ Slave function. Solvent Selection valve facility		
3.2	Gradient mixer: (1no)		
3.3	Manual injector: (1no) Rheodyne injector with 20µl loop and mounting bracket Additional loops of 5, 50,100 & 200 µl to be included.		
3.4	Fluorescence detector (1 no.) 1. Sensitivity :S/n ratio better than 350 :1 2. Light source : Long life Xe Lamp 3. Holographic Concave Diffraction Grating Monochromators for both Excitation & Emission 4. Wavelength range: settable from 200 – 900 nm for Ex. & Em. With rapid scan feature. 5. Spectra bandwidth: Fixed for Ex & selectable for Em. 6. Wavelength accuracy: ± 2.0 nm or better 7. Capable of self diagnostics & error message. 8. Must have a temperature compensation facility		
3.5	Dual beam UV visible absorbance detector (1 no) Wavelength range: 190-900nm. Light source: Deuterium with warranty of 2000 hrs. Noise: < ± 0.35 x 10-5 AU, dry cell, 254nm. Drift 1x10-4 AU/hr. Accuracy ± 1nm. Measurement range: 0.0001 to 4.0000 AUFS. Bandwidth: 5nm. Flow cell: 10µl. time programmable: wavelength, polarity, lamp on/off. Online LCD display of chromatograms/ spectra.		

3.6	Chromatography manager: (1no) Microprocessor of speed not less than 3 GHz, computer with 1GB RAM, 80GB hard disk drive, 1.44MB floppy drive, 52XCD-ROM R/W drive, Windows, 17" flat color monitor, color laser printer, with the following features: • Control, acquire & process data. • Interactive control and display of solvent delivery. • All functions and features accessible from a single window – use the command bar to navigate. • Wizard to simplify and automate common system functions. • Methods – instrument, processing & reporting parameters in one place. • Oracle or equivalent database for better organization & easy retrieval or work and system user data. • Diagnostic functions & configuration wizards. • Extensive user help. • Institutional copy of relevant software		
3.7	Columns For Drug Abuse – 2Nos Estimation of Drug Level – 2Nos		
3.8	Guard columns- 3/pack for each column.		
3.9	Compatible External Ultrasonic degasser bath (1 no.)		
3.10	Compatible Water purification system to generate HPLC grade water of minimum sp. Resistively of 17.8 M Ohms (1 no.)		
3.11	Electro – Chemical Detector having working electrode and reference electrode compatible with clinical biochemistry applications. (1 no.)		
3.12	Column heater (1 no): • Temperature range: 20º C to 60º C • Temperature accuracy: ± 0.8º C. • Temperature precision: ±0.25ºC Column capacity: minimum 2 columns with guard columns		
3.13	Filtration accessories: a. Solvent clarification kit with vacuums pump. b. Sample clarification kit (Aqueous & organic)		
3.14	System should have installation kit for each module.		
3.15	Quotations (Rates) for pre validated HPLC kits for each of the following mentioned below should be supplied along with necessary columns and peripherals. For Drug Abuse Estimation of Drug Level		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

4.1	As specified		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		
5.3	Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%.		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.		
6.3	Reset table over current breaker shall be fitted for protection		

7 Standards and Safety

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.2	Should be FDA or CE approved product		
7.3	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied		
8.2	Certificate of calibration and inspection from factory.		

8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.4	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out		
8.5	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue.		
8.6	List of important spare parts and accessories with their part number and costing. Available in stock with the supplier.		

Schedule No. – 27

THIN LAYER CHROMATOGRAPHY

1 Description of Function

1.1	Instrumental Thin-Layer Chromatography (or Planar Chromatography) is a modern separation technique, established worldwide and distinguished by flexibility, reliability and cost efficiency		

2 Operational Requirements

2.1	Complete with IP/BP/USP standards having movable applicator with in-built thickness arrangement between 0.25 mm to 0.35 mm having following components as per Technical Specifications		

3 Technical Specifications

3.1	Technical Specifications Thin Layer Chromatography System: 1. Spreader (Applicator) made of anodized aluminum, with fixed thickness and width of 5 cm, 10 cm and 20 cm. 2. Perspex brass size 125 x 25 cm to support 5 glass plate of size 20 x 20cm and two plates of size 20x5 em 3. Plate store rack aluminum for ten 20x20 plates 4. Spotting template Perspex 5. Developing tank with lid 6. TLC plate set 20x20 cm or 20x 10 cm 7. Micro-Pipette 5 microliter and 10 microliter 8. Scriber for making lines 9. Glass sprayer with rubber bellow 10. TLC plate store cabinet 11. Special drying cabinet with inspection window 12. Desicator cabinet 13. U.V. Chromatography inspection cabinet with two U.V. tubes 254 and 365nm		

4 System Configuration Accessories, spares and consumables

4.1	All consumables required for installation and standardization of system to be given free of cost.		

5 Environmental factors	
5.1	The unit shall be capable of operating continuosly in ambient temperature of 10-40 deg C and relative humadity of 15-90%
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%
6 Power Supply	
7 Standards, Safety and Training	
7.1	1. Should be FDA,CE,UL or BIS approved product. 2. Manufacturer should have ISO certification for quality standards. 3. Comprehensive training for lab staff and support services till familiarity with Ithe system on site. 4. Comprehensive warranty for 2 years and 5 years CMC after warranty. 5. Certified to be compliant with Electrical Safety Standard for Medical Equipments- IEC- 60601-1-1 OR equivalent BIS OR international standard for electrical safety.
8 Documentation	
8.1	1. User/Technical/Maintenance manuals to be supplied in English. 2. Certificate of calibration and inspection. 3. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer service/ maintenance manual. 4. List of important spare parts and accessories with their part number and costing. 5. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of clerarlyt spelt out. 6. Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number with authenticated catalogue/manual,without which it will not be considered.

Schedule No. - 28

PLETHYSMOMETER DIGITAL UGO BASILE

- Evaluation of small volume differences.
- Clear digital readout on the built-in graphical display (or via PC connection).
- Microprocessor controlled unit allows direct connection to PC.
- Connection to optional Thermal Mini Printer and Scale.
- Foot Switch Operation.

Schedule No. - 29

Equipment Specifications for Harmonic Scalpel

UNSPSC Code:
ECRI Code:

1 Description of Function

1.1	Ultrasound is the basis for an efficient surgical instrument: the HARMONIC SCALPEL cuts and coagulates by using lower temperatures than those used by electrosurgery or lasers. HARMONIC SCALPEL technology controls bleeding by coaptive coagulation at low temperatures ranging from 50ºC to 100ºC: vessels are coapted (tamponaded) and sealed by a protein coagulum.

2 Operational Requirements

2.1	The system is required for Laparoscopic & other Surgerical Procedures.

3 Technical Specifications

3.1	1.Ultrasonic generator generating ultrasound at app 55.5 khz frequency 2. Hand-piece with in-built transducer & silicon cable 3. Hand-switch activation adopter for blade & hook probe 4. Cart to house the generator and accessories 5. Dual foot-switch attachment 6. Stand-by mode for better safety 7. System diagnostics and trouble shooting guide 8. Warning system for malfunctioning cable, probe etc 9. Power entry filters to suppress electromagnetic disturbances to monitors 10. It should have dual foot switch receptacles to connect 2 foot switch to allow simultaneous use by 2 surgeons. 11. It should have a vibration range of 50-100 micrometer

4 System Configuration Accessories, spares and consumables

4.1	B) Accessories 1. Foot-switch with max and min pedals and cable. 2. 5 mm blade system adopter 3. Hand switch adopter 4.Open surgery Instruments: a. Coagulation shears-10mm dia, 20cm long b. Short curved coagulation shears-5mm dia,14cm long c. Dissecting hooks,5mm dia,10cm long d. Hand activated coagulation shears with clicker-5mm dia, curved mode 2cm long. 5. Endoscopic surgery Instruments: a. Dissecting hook, 5mm,32cm long b. Curved blade,5mm dia,32cm long c. Laparoscopic coagulating shears,10mm dia,34cm long d. Laparoscopic coagulating shears, 5mm dia, knife mode,34cm long e. Laparoscopic coagulating shears 5mm dia, curved mode,36cm long. f. Laparoscopic hand activated shears, 5mm dia, curved mode, 36cm long g. Laparoscopic coagulating shears, 5mm dia, curved mode, 45cm long h. Laparoscopic hand activated coagulating shears with clicker-5mm dia curved mode,36cm long C) Probes:

	1. It should have both 5mm and 10mm instruments 2. It should have the following types of shears for open and laparoscopic surgery a. 10mm coagulating shear capable of working in 3 modes flat, blunt and sharp b. 5mm laparoscopic curved coagulating shears,360 deg rotable, capable of sealing blood vessels upto 5mm diameter with clicker and integrated hand control to enable precise operation of system by hand. 3.All hand pieces should be steam autoclavable.

5 Environmental factors

5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -50 deg C and relative humidity of 15-90%
5.3	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%

6 Power Supply

6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2	UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.

7 Standards, Safety and Training

7.1	The generator must be CF isolated applied device and defibrillator protection must be available.
7.2	Should be FDA/CE or BIS approved product
7.3	Manufacturer should have ISO certification for quality standards.
7.4	Deleted
7.5	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
7.6	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

8 Documentation

8.1	User/Technical/Maintenance manuals to be supplied in English.
8.2	Certificate of calibration and inspection.
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
8.4	List of important spare parts and accessories with their part number and costing.
8.5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.
8.6	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.

Schedule No. - 30

Basic Plastic/ Rhynoplasty /Cleft lip & Palate surgery instrument set

The instrument should be of improved steel with high precision quality with CE, TUV or ISO 9002 certification.
The fine cutting instruments should be of tungsten carbide super cut variety.
The needle holders should be with Tungsten carbide inserts of extra durability.

Converse skin hook small	8
Converse skin hook large	8
Mathieu retractor (Cat's paw)	8
Hajek's retractor	2
Langenbeck's retractor small	4
Langenbeck's retractor large	4
Waislander Retractor (self retaining)	2
Dental syringe	4
Stainless steel scale 6"	2
Stainless steel 12"	1
Castroviejo calipers	2
Bristow bone lever	2
Smith Peterson Osteotome 10mm	2
Smith Peterson Osteotome 20mm	2
Smith Peterson Osteotome 25mm	2
Tessier Osteotome set of 8	1
Gouge 7" 2mm	2
Gouge 7" 4mm	2
French Chisel 11mm	4
Halsted Mosquito artery forceps 5 ¾ " curved	24
Halsted Mosquito artery forceps 5 ¾ " straight	24
Kochers forceps	12
Kelly artery forceps st	24
Kelly artery forceps cvd	24
Danty tissue forceps	24
Debakay tissue forceps straight non traumatic jaws 4.5mm jaws 8"	4
Mcindoe dissecting forceps 6" non toothed serrated jaws	6
Potts smith dressing forceps 7"	4
Adson tissue forceps 4 ¾ " toothed delicate	4
Adson tissue forceps serrated jaws 4 ¾"	4
Gillies dissecting forceps 6" 4X5 teeth	4
Elevator double ended, angled right and left	4
Elevator double ended, spoon shaped	4
Molt dissector	2
Howarth elevator	2
Scissor angle short blades 18mm with serrated blades	2
Kilner scissors straight with fine points	4
Kilner scissor s curved on flat 12cm	4
Mcindoe scissors cvd. On flat with round points 7"	4
Iris scissors straight sharp TC supercut	6

Iris scissors cvd. Sharp TC supercut	4
Surgical scissors 5" st. sharp points TC	6
Stevens tenotomy scissors cvd. 12cm TC	2
Brown dessecting scissors st. 5 ¾"	4
Mayo dissecting supercut scissors 17cm cvd.	4
Mayo dissecting supercut scissors 17cm st.	4
Fomon supercut scissors cvd. 5"	2
Fomon supercut scissors cvd. 5" Dorsal angle 15cm	1
Metzenbaum scissors cvd. 18mm TC supercut	2
Gorney scissors cvd 9"	2
Mayo hegar needle holder 6 1/4"	4
Derf needle holder 4 ¾"	4
Maltz Rasp TC	2
Mcindoe Rasp TC	2
Mallet 8 oz	1
Asch forceps	1
Ruskin Bone cutting forceps	2
Luc's forceps	2
Padgett angled bone cutting forceps	2
Padgett angled bone cutting forceps	2
Bunnel bone drill small	1

Knuckle bender large	20
Knuckle bender medium	20
Knuckle bender small	20
Mcindoes raspatory	4
Bard parker knife handle no.3	4
Bard parker knife handle no. 4	2
Bard parker long knife handle no.3	2
Barron knife handle octagonal	4
Backhaus Towel clips 3 ½"	12
Sponge holding forceps 9 ½"	8
Frazier suction tube 8 French	4
Frazier suction tube 10 French	4
Magilli's suction tube size 2	4
Meade wire cutter pliers	2
Dressing trolley	6

Schedule No. – 31
STRESS TEST SYSTEM WITH TMT

1 Description of Function

1.1	Exercise stress testing systems offer a wide array of unique diagnostic software options to evaluate myocardial function. Automatic arrhythmia detection, ST-segment analysis, and T-wave alternans are a few examples. In conjunction with a treadmill or ergometer, these systems provide a controlled environment for the observation of the effects of increases in myocardial oxygen demand: exercise-induced systolic hypotension, exercise-induced angina, and/or the appearance of a heart murmur during exercise.

2 Operational Requirements

2.1	System complete with PC, Software, TMT and necessary cables is required.

3 Technical Specifications

3.1	1. System should acquire and analyze 12 leads. 2. System should be based on Windows platform with 17" color monitor having minimum resolution 1280 x 1024. 80 GB HDD, CD-RW, Mouse, UPS for analyzer. 3. Wireless patient module between patient and analyzer thus providing wireless transmission of patients ECG / remote patient preparation. The wireless module must have display for ECG waveform, electrode impedance check, low battery/ lead fail display. 4. Should provide standard Full Interpretation of Supine ECG with reasoning. 5. Display of real time 12 lead diagnostic quality ECG waveform, average complexes beat of all 12 leads with superimposed color comparison along with digital value of ST level and slope. Display the graph on the recording paper. 6. Automatic detection, display, Storage and review of arrhythmia, Heart Rate, Double Product and METS. It should have online HR METs and ST running trends available on the screen during exercise. 7. System should have ability to manual edit of J & Isoelectric point during exercise. Filters for line frequency and special filters to reduce noise and baseline artifacts without compromising the ECG frequency response. 8. System should have full disclosure play back, review and storage of patient ECG raw data for unlimited numbers depending upon size of the hard disk. The unit should have the ability to readjust "J-ST" interval measurement + 1 m sec points and generate a new report from stored raw ECG data. 9. System should provide multiple and customizable printing formats as per user's choice on A-4 size high resolution thermal printer for online real time printings. Compatible laser printer for printing reports on plain paper also to be supplied. 10. System must have ECG trigger output to interface with external automatic devices. 11. Heavy Duty Treadmill (Imported): Noise free TREADMILL with speed ranging from 0.5 to 20 kmph and grade of 0 – 22% with suitable servo stabilizer.

	12. Automatic Stress test Non Invasive Blood Pressure Monitor, compatible with the treadmill stress Test System for bi-directional exchange of data between the monitor and analyzer. Optional Pulse Oximetry (SpO2) integrated with NIBP Module to be quoted separately.of enlarged complex and facility of dynamic lead selection for maximum ST changes. Display of 1mm graph on the monitor should be similar to		

4 System Configuration Accessories, spares and consumables

4.1	System as specified		
4.2	All consumables required for installation and standardization of system to be given free of cost.		

5 Environmental factors

	None	

6 Power Supply

6.1	Power input to be 220-240VAC, 50Hz		
6.2	Suitable Servo controlled Stabilizer/CVT		

7 Standards, Safety and Training

7.1	Should be FDA/ CE or BIS approved product		

8 Documentation

8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection.		
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		

Schedule No. 32

Technical specifications for General Surgery Laparoscopic unit

Full High Definition Three Chip Camera System-1

1. Camera control unit with 3 chip HD camera head having HD CCD chip of same aspect ratio of 16:9
2. Pure Digital signal with high definition video (1920*1080 P) with aspect ration 16:9 with DVID,SDI & S-VHS video output.
3. Integrated Flexible Scope filter
4. Progressive scan technology
5. Brightness Control
6. Aperture Control
7. Automatic digital Image Enhancer
8. Should have Parfocal optical zoom 14-30mm, to increase and decrease the size of image which should remain in focusing zone, without readjusting the focus.
9. Should have integrated Gain, shutter, Enhancement, white balance with brightness control.
10. Should have USB interface for direct storage of still & video sequences.
11. The Camera head should have integrated zooms and focus lens/rings to make it fully soakable.
12. Should be IEC 601-1, CE according to MDD.

High Resolution HD Video medical Monitor-1

1- 24" High Definition Medical grade Monitor, resolution 1920 X 1200 with DVI input, option for wall mounting and desktop in same unit
2- Fast response time
3- Number of colors : 16.8 million
4- Vertical/Horizontal viewing Angle:178 degree

Xenon Light Source-1

1- Xenon light source of 300 Watts
2- Should be able to produce colour temperature of 6000 k
3- Should have continuous manual adjustment of light output
4- One spare xenon lamp 300 watts.
5- Should be certified IEC 601-1 and CE according to MDD.

Fibre Optic Light Cable-2

Fibre Optic light cable, length: 250cm.

CO2 Electronic Insufflator-1

1- Electronic CO2 insufflators with pin index connection.
2- Adjustable flow rate of 0 to 20 ltr. Per minute and a pressure range adjustable between 0-30 mm Hg.
3- Pre-set and actual value for pressure and flow should be displayed together on the front panel in digital display.
4- Constant monitoring of intra-abdominal pressure; any overpressure is released immediately with back flow with acoustic alarm.
5- Unit should have in-built heater to warm up and preheat the CO2 gas.

6- Should be able to select either central supply (4.5Kg/cm 2) input pressure from central supply as well as direct connection to high pressure CO2 Cylinder and should indicate the right inlet pressure of CO2 gas supply by bar graph on front panel of machine.
7- Unit should produce immediately acoustic alarm in case of sudden blockage in the gas outlet tube or wrongly placed veress Needle.
8- Provided with Silicon autoclave tubing with luer attachment.
9- Instrument should work on a universal power supply of 100-240 V, with a frequency of 50 Hz single phase.
10- Electrical Safety certification.

HP Hose-1

1- Suitable high pressure hose pin index to connect the gas to insufflator, length: 1.0 meter.

CO2 Cylinder-2

1- 5 Kg. Carbon Dioxide bottle with pin index connection with wrench

Electro Surgical Unit with vessel sealer-1

1- Microcontroller based Digital Electrosurgical Unit/Cautery having paeak power of minimum of 300 Watts, with Digital Display/LCD display Push Switch/touch Control Provides Consistent Performance for laparoscopic Surgical Procedures & Delivers its Optimum & Reliable Power by using latest & Advance Technology, Convenient for all Surgical Application.
2- Unipolar as well as bipolar facility having operating frequency between 450-700 KHz.
3- Must have Mono-polar & Bipolar Coagulation Facility on the unit.
4- Facility for pure cut adjustable from 0-300 watts, blend/haemostatic effects variable up to 0-250 watts, endocut/lapro/gastro cut up to 200 watts, Bipolar cut and Coagulation variable up to minimum of 100 & 120 watts respectively. Spray & Forced coagulation facility should be there up to 120 watts.
5- In Accordance with IEC 60601-1 and IEC 60601-2-2; CE certificate
6- Unit should be supplied with three paddle footswitch, patient plate, patient cable, hand control pencil with standard accessories

Video Trolley-1

1- Suitable Medical Grade video trolley to be supplied for mounting equipment's having minimum three self in addition to with one drawer, with antistatic wheel casters, front lockable,
2- High grade of electrical insulation and earth protection.
3- 5 Ampere socket, 10Nos, inbuilt with trolley to connect all electronic devices.
4- CO2 bottle stand should be integrated with trolley.

UPS 2.0 KVA-1

1- UPS-2.0 KVA off line with One hour backup time (at 1200 Watts real load) with SMF Batteries.
2- Should be able to work on wide input range between 160-270 VAC at frequency between 50Hz± 2Hz, should use PWM technology with power conversion with single transformer arrangements with an output of 220VAC ± 5%, protection of overload, short circuit and low battery. Should have indication on front panel for mains load/battery load/ battery overload-low and MCB protection in case of short circuit. ISI/CE approved good quality Indian make

Telescopes

Telescope 0º 10MM-1

Telescope 30º 10MM-1
Telescope 0º 5MM-1
Telescope 30º 5MM-1

1- Rod lenses system, Length: 29-31 cm, Autoclavable, Fibre optic light transmission incorporated
2- Straight forward telescope, 0 degree enlarged view
3- Forward Oblique Telescope, 30 degree enlarged view

Trocar & Cannula

Trocar & Cannula size 11mm-2

Trocar & Cannula size 6mm-4

1. Cannula size: 11mm diameter; should have multifunctional valve and automotive valve to prevent damage of sharp instruments. It should have stopcock for CO2 insufflation.
2. Trocar should have pyramida tip with pin holes near the tip for safety outlet of CO2 gas. The working length of the cannula should be 100-110 mm.

Trocar under optical vision-1

1- Trocar with endo tip size: 10mm, cannula rotatable with multifunction valve, working length: 11 cm.
2- The endo tip cannula should compartible with 10mm telescope for under vision entry into peritoneum.

Veress Needle-2

1- Working length 13cm with luer lock.

Forceps

Length-36 cm, 5mm

1- Grasping Forcep Fenestrated-1
2- Grasping Forcep Fenestrated curved Fundus grasper-1
3- Grasping Forcep Atraumatic Hartmann pouch-1
4- Bowel Grasping Forcep-2
5- Unipolar Curved Marryland dissescting and Grasping Forcep-1
6- Insert Forcep Unipolar: Insert forceps only Marryland type curved atraumatic jaw compartible with main Kelley curved dissecting forceps-1
7- Unipolar curved Right angle dissecting and Grasping Forceps-1
8- Unipolar Tooth Grasping forcep-1
9- Scissor curved unipolar length of blade 12mm, connection for unipolar HF cable,-1
10- Bipolar Scissor
11- Insert curved scissor- Scissor curved inset to fit with main curved scissor-2
12- Hook Scissor Unipolar-1
13- L Hook with unipolar HF connection-1
14- Spatula with unipolar HF dissector-2
15- Puncture Needle, size : 5mm, length 36cm-2
16- Claw Forceps, 10 mm claw forceps, 2x3 teeth short with ratchet-1
17- Spoon Forceps, 10mm without ratchet-1
18- Heavy Duty Bipolar Forceps length : 36cm, rotating, preferably CLEMONT-FERRAD wide jaw with spare insert and handle. Suitable bipolar HF cable 2 Nos. to be included along with it-1
19- Bipolar HF Connecting Cable-2

20- Unipolar HF Cable-Unipolar HF cable suitable to connect with forcep and electrosurgical unit-2
21- Clip Applicator-Medium Large clip applicator dismantable rotating size: 10mm, length 36cm, for PILLING WECK Titanium clips with ratchet to lock the jaw holding the clip-1
22- Clip Applicator- Large clip applicator dismantable rotating size: 10mm, length 36cm, for PILLING WECK Titanium clips with ratchet to lock the jaw holding the clip-1
23- Titanium Clips- Titanium clips medium large & Large, box with 16 sterile cartridges, 10 clips each for use with clip applicator-10
24- Two Way Suction irrigation cannula, size: 5mm&10mm each with special handle with trumpet control for irrigation and suction with silicon tubing-1 each

SUCTION & IRRIGATION DEVICE-1

1. Compact suction and irrigation unit having Irrigation pressure not less than 400mmHg & Suction pressure not less than (-0.75mmHg).

2- The unit should be supplied with 1.5 litre glass bottle with bottle cap and stand ; the unit should be supplied with 1.0 Litre irrigation bottle sterilization in autoclave with bottle cap attachment to connect tubing.
3- The unit should be supplied with reusable irrigation and suction silicon tubing set 2 Nos. each.

Needle Holder –Macro needle holder with tungsten carbide insert, ergonomic pistol handle, with disengageable ratchet, jaw curved to left, size : 5mm, length: 33cm for use with suture material size: 0/0 to 7/0-2

Fan retractor-Fan retractor with simple opening of the fan by axial movement of the outer sheath, dismountable and distendable, size:10mm, length: 36cm-1

CUSHERI Liver retractor- size : 10mm & 5mm; Length: 36cm- 1each

Hassan Cannula-1

Knot Pusher (Open) reusable-2

Knot Pusher (closed) reusable-2

Port closure Needle-2

Laparoscoopic Instrument Tray Compatible with 3mm,5mm,10mm instrument-3

Sterlization/Disinfection Tray having sieve tray to lift. Size: 27”x7”x5”(LXBXD)-4Nos

Formaline Chamber made of Virgin Acrylic 4.5mm thickness; size 26”x8”x8” (LxBxH) with three tray, for sterilizing the laparoscope, preferable with three tray
Laparoscopic instruments for bariatiric surgery

1. Telescope Forward Oblique 45”, 10 mm-1
2. Endovision Cannula, 13 mm-1
3. Trocar and Cannula, size 6 mm with automatic and manual opening valve-6
4. Trocar and Cannula, size 11 mm with automatic and manual opeining valve-2
5. Telescope Stopper for endovision cannula 13mm-1
6. Reducer 11 /5mm-1
7. Double reducer 13 /10mm & 13 / 5mm – 1
8. Dismantable into three part, Anvil Grasper, 5 mm, 43 cm-1

9. Dismantable into three parts Grasping Forceps, 5 mm, 43 cm-1
10. Dismantable into three parts Grasping Forceps, 5mm, 43 cm- 1
11. Dismantable into three parts long jaw atraumatic Grasping Forceps, 5mm, 43 cm-1
12. CUSCHIERI Liver Retractor – 1
13. 10mm Retractor, for Gastric- Banding- 1
14. Macro Needle Holder, 5 mm x 43cm long- 1
15. Bipolar strong jaws Grasper, 5 mm, 43 cm – 1
16. Bipolar Cautery Lead – 1
17. Unipolar Cautery Lead – 1
18. MATKOWITZ Grasping Forceps 5mm x 36cm- 1
19. Metalic Outer tube with CM-marking 5mm x 36cm – 1
20. KELLY dissectiong & grasping forceps long, 5mm x 43cm – 1
21. Dismantable Scissors, with serrated jaws curved, 5mm x 43cm – 1
22. Dissecting L- Shape Hook electrode, detach-tip, 5mm x 43cm – 1
23. BABCOCK Grasping forceps 10mm, 36cm – 1
24. Pistol Grip Handle with Trumpet Valves for SUC/IRRI tubes 5mm & 10mm – 1
25. Cannula for Pistol Grip Handle, with lateral holes 5mm x 43cm -1
26. Cannula for Pistol Grip Handle, with lateral holes 10mm x 36cm – 1
27. Oil in Bottle for above handle & other instruments – 1
28. BERCI Fascia Closure Instrument – 1
29. VERESS Needle 15cm long for Obese Patients – Douglas Technique – 1
30. Adjustable Holding System for fixation of Telescopes – 1
31. KOCHLI Endobag Extractor - 1

Single Port Laparoscopic cholecystectomy set

1. Single port EndoCone (size 34 mm) Consisting of: Port and seal-1
2. Single port attachment in the shape of X-Cone (size 20 mm) consisting of: Cone, seal, insufflation stopcock, reduction sleeve, sealing clamp- 1
3. Forward-Oblique Telescope 30º, enlarged view, diameter 5 mm, length 29 cm, autoclavable, fiber optic light transmission incorporated, connection for fiber optic light cable on reverse side – 1
4. Light adapter- Ø 4,8 mm - 90º angled – Free rotatable to connect with standard scopes 1
5. Forward-Oblique Tele-scope 30º, diameter 5.5 mm, length 50 cm, autoclavable. Fiber optic light transmission incorporated – 1
6. Variable Angle one in all Telescope, Ø 10 mm, length 32 cm, variable direction of view from 0º-120º, twisting controller to select the desired view of direction, fiber optic light transmission incorporated – 1
7. Bowel Grasper, rotating, fenestrated, double action jaws, sheath bending according to CARUS, size 5 mm, straight length 40 cm, consisting of: Metal Handle, with disengageable ratchet, outer Tube with working insert – 1
8. Outer Tube with working insert, REDDICK-OLSEN Dissecting and Grasping Forceps, heavy, double action jaws, sheath bending according to CARUS, size 5 mm, straight length 40cm consisiting of: Metal Handle, with disengageable ratchet, Outer Tube with working insert – 1
9. KELLY Dissecting and Grasping Forceps, rotating, long, double action jaws, with connector pin for unipolar coagulation, sheath bending according to CARUS, size 5 mm, straight length 40 cm, consiting of: Metal Handle, insulated, without ratchet, Outer Tube with working insert- 1
10. METZENBARUM Scissors, rotating, curved, length of blades 12 mm, double action jaws, with connector pin for unipolar coagulation, sheath bending according to CARUS, size 5 mm, straight length 40 cm, consisting of: Metal-Handle, insulated, without ratchet, outer Tube with working insert – 1
11. REDDICK-OLSEN Dissecting and Grasping Forceps, heavy, double action jaws, with connector pin for unipolar coagulation, sheath bending according to CUSCHIERI, size 5 mm, straight length 40 cm,

consisting of: Metal-Y-Handle, insulated, without ratchet, with 4 locking position, Outer Tube with working insert – 1

12. KELLY Dissecting and Grasping Forceps, rotating, long, double action jaws, with connector pin for unipolar coagulation, sheath bending according to CUSCHIERI, size 5 mm, straight length 40 cm, consisting of: Metal-Y-Handle, insulated, without ratchet, with 4 locking positions, Outer Tube with working insert- 1
13. Dissecting and Grasping Forceps, right angled, double action jaws, with connector pin for unipolar coagulation, sheath bending according to CUSCHIERI, size 5 mm, straight length 40 cm consisiting of: Metal-Y-Handle, insulated, without ratchet, Outer Tube with working insert – 1
14. METZENBAUM Scissors, curved, length of blades 12 mm, double action jaws, with connector pin for unipolar coagulation, sheath bending according to CUSCHIERI, size 5 mm, straight length 40 cm, consisting of: Metal-Y-Handle, insulated, without ratchet, with 4 locking position, Outer Tube with working insert – 1
15. KELLY Dissecting and Grasping Forceps, double action jaws, with connector pin for unipolar coagulation, sheath bending according to LEROY, size 5 mm, straight length 40 cm, consisting of: Metal Handle, insulated, without ratchet, with 4 locking positions, Outer Tube with working insert – 1
16. KELLY Dissecting and Grasping Forceps, long double action jaws, with connector pin for unipolar coagulation, sheath bending according to LEROY, size 5 mm, straight length 40 cm, consisiting of: Metal Handle, insulated, without ratchet, with 4 locking positions, Outer Tube with working insert – 1
17. Coagulating and Dissecting Electrode, L-shaped tip, sheath bending according to LEROY, size 5 mm, stretched length 40 cm -1
18. Grasping Forceps, with especially fine atraumatic serration, fenestrated, single action jaws, with connector pin for unipolar coagulation, sheath bending according to LEROY, size 5 mm, straight length 40 cm consisting of: Metal Handle, insulated, without ratchet, with 4 locking positions, Outer Tube with working insert – 1
19. METZENBARUM Scissors, curved, length of blades 12 mm, double action jaws, with connector pin for unipolar coagulation, sheath bending according to DAPRI, size 5 mm, straight length 40 cm, consisting of: Metal-Handle, insulated, without ratchet, with 4 locking positions, Outer Tube with working insert – 1
20. Coagulating and Dissecting Electrode, L-Shaped tip, sheath bending according to DAPRI, size 5 mm, straight length 40 cm – 1

Should be US FDA/CE approved product, minimum three years from this ITB.

Comprehensive warranty and CMC as specified.

Manufacturer/Supplier should have ISO certification for quality standards.

Product should have IEC safety standards where ever listed.

The core Operating laparoscope like Telescopes, Endovision Three chip HD Camera, light source, CO2 Insufflator, hand instruement (bipolar forcep, unipolar forcep, Needle holder, clip applicator, retractors etc.) fiber optic cable, veress needle, video monitor be from single manufacturer for system compatibility.

Schedule No. - 33

PC Based polygraph

Should be able to Record and analyze

1. GSR, temperature, pulse, respiration, airflow, blood pressure, Heart Rate Variability [HRV]
2. ECG recording with all leads, phono cardiogram to record heart sounds and correlate the sound with the electrical events of the cardiac cycle
3. Blood pressure
4. EMG data to investigate the properties of skeletal muscle, Record and display raw and integrated EMG signals, Measure strength and repeat trials for motor unit recruitment, summation and fatigue,
5. Dynamometer to study handgrip strength profile
6. EEG under variety of conditions to explore relaxation and brain rhythms, Software to filter and display each rhythm separately. Delta, Theta, Alpha & Beta : EOG (ocular signal) to study eye movements saccades, tracking angular displacement or ocular fixations.

1. Specifications:

- Number of channel : 8
- Transducers & couplers: Pressure, Plethysmography, strain guage Isotonic & Isometric Force. Respiration, Pulse, Surface Temperature probe, Biopotential Internal Temperature probe GSR Electrode ; and any other needed for the measurement of the above parameters
  - Computer : Intel Core i5-760 processor (2.80GHz, 1333MHz FSB, 8MB Cache) Genuine Windows 7 professional, 64bit (English): 21.5 " Full HD Widescreen Flat Panel Monitor : 6GB DDR3 5DRAM, 500GB SATA Hard Drive ; Single Drive: Blu-ray Disc Combo (DVD+/RW+BD-ROM). Facility for internet connectivity, with facility of up gradation ; color laser printer
  - UPS with 20 minutes back up for whole system required
  - System should be backed by software capable of rapid analysis of the acquired date and presenting it in various formats while reporting

2. **Software**: File compatibility with other applications like MS word, MS excel; Data storage on CD, Data analysis
3. standard accessories, a set of essential spares for trouble free operation for minimum 5 Years

Schedule No. - 34

Specification of LEEP SYSTEM with Smoke Evacuator & integrated cart

Should have electrosurgical generator with isolated power output and LED display located in front for precise power selection, deliver and easy to use
Should have provision of choice to CUT, BLEND and COAG.. Wave form to accommodate subtle differences in technique and electrode performance
Should have RF output frequency 450Khz power cut 0-100 watt
Should have flash faceplate membrane facilitate operation cleaning
Should have microprocessor controlled for increased precession, accuracy, reproducibility and safety
Should have pneumatic foot pedal for maximum safety
Should have audible safety features include distinct tones for each operating setting
Should have automatic self test mechanism ensures accurate system operation
Should have high air flow efficiently captures somke plume with a variable speed control
Should have triple stage filtration captures airbone particulate matter, vapor and odor withy a 99.999% efficiency level

Should have virtually maintenance free
Should have replacement filters available
Standard accessories are:-1) hand piece adaptor 2) patent return (single use) 6) smoke evacuator package 7) smoke evacuator pre filter 8) smoke evacuator reducers 9) smoke evacuator disposable tubing (6 ft.) 10) ball electrode 11) electrode 2cmx0.8cm, 12cm shaft length 12) condyloma electrode 13) prima speculum large, medium 14) lateral retractor 15) reusable metal cartridge syringe 16) integrated cart (imported)
Should be USFDA approved

Schedule No - 35

CRYO SURGICAL SYSTEM

Should have excellent thermal conductivity
Should have High strength brass line nani fold for maximum safety
Should have Variety of probe tips style to meet the need
Should have calibrated, easy to read pressure guage ensures accurate freeze temprerature
Should have instant off and automatic gas line cleaning with remote off / on switch.
Should have wide choice of hand crafted double bonded, coin-silver cryo tips probe for every lesion and location
Should have 20lb cylinder with cart
Should have available with different gynae tips
Should be USFDA approved

Schedule No - 36

Specification for Laparoscopic Surgery Set with High Definition Camera

1. Description of Function

1.1 Laparoscope is used for minimally invasive surgery and comparises of telescope and associated instruments and units.

2. Operational Requirements

All offered items should be from same manufacturer.

1. Technical Specifications

1.1 CAMERA CONTROL UNIT & CAMERA

High definition Endoscopic camera system should have following features:

i. Digital HD technology
j. Progressive Scan
k. Consistent use of 16:9 format for input and output for HDTV function.
l. CCD chip having hi-fidelity image transmission
m. System should have integerated Parafocal Optical Zoom (F 14-30mm, 2 X) to enhance image size.
n. System should be able to optimize all the settings and should be ready as soon as connected to camera control unit.
o. Camera control unit should be compatible with all camera heads i.e Three chip
p. Should be compatible for remote controlled operation of various features

q. Technical Specification :-

I.	Image Sensor	3 x 1/3 CCD Chip
Ii.	Pixels	1920 x 1080
III.	AGC	Microprocessor controlled
Iv.	Lens	F14-30mm
V.	Video Outputs	Composite to BNC, Y/C to S-VHS, RGB to D Socket, HDTV-DVI-D, DV for recording
Vi.	Input	Key Board for Character Generator, 5 pole Din socket.

1.2 MONITOR

Two Wide Screen Monitors having the following features:

r. HDTV Display in 16:10 HDTV format.
s. LCD Crystal display
t. 23" & 26" Diagonal Screen
u. Resolution : 1920 x 1200 pixels
v. SDI/HD-SDI, Composite, S-Video RGB, DVI-D and VGA input
w. All required cables and connectors, which should be specified
x. TFT screen stand/Fixtures for connecting to pendant system/Ceiling Light Arm
y. Dustproof and Drip Water Protected

1.3 TELESCOPES

1. 5 mm & 10 mm diameter, approximately 30-35 cm long
2. Straight forward, zero & 30 degree angle of view
3. Low risk of object bum
4. Colour coded for identification
5. Autoclavable
6. Fibreoptic light transmission incorporated

1.4 INSUFFLATOR

21. Fully automatic, electronically controlled gas fill
22. Flow rate of 20-30 litres per minute
23. Optical and acoustic warning signals in case of malfunction or excessive pressure
24. Connectible to medical gas pipeline
25. Control by keys on front panel
26. Clear and adjacent display of actual and preset flow rate, actual and preset pressure, gas consumed
27. Facility for filtering preheating of gas to body temperature
28. Facility for easy evacuation of smoke and mist
29. Memory for retention of previous pressure settings
30. Should include pin-index connection to small/big cylinder with regulator, high pressure hose, mains cord, silicone tubing set, universal wrench and gas filter

1.5 LIGHT SOUCE

13. Xenon 300 watts
14. Manaual and automatic adjustment of light intensity
15. Lamp life 500 hrs or more with at least one spare bulb
16. Display of lamp life/Bulb usage meter warning light
17. Standby mode with emergency lamp with visual indicator

18. Long (250 cm or more) fluid and fibre-optic light cable of diameter 4.8-5 mm
19. Built in anti fog airpump
20. Light weight
21. Certified for National International safety standard normal
22. Power supply

1.6 SUNCTION-IRRIGATION UNIT

13. Pump for irrigation and suction
14. Maximum irrigation pressure 400 mm Hg
15. Suction pressure 0.75 bar
16. Control from control panel and/or foot pedal
17. Overflow protection on suction bottles
18. Accessories should include silicone tubings, bacterial filter and bottles with cap

1.7 VIDEO- CART

o. Made of stainless steel / Epoxy coated metal
p. Portable on 4 antistatic dual castors, 2 with locking brakes
q. Required number of shelves for housing all the units of the set
r. Adjustable arm for fixation to either side for fixing the TFT monitor
s. One drawer unit with lock and key
t. Cable Manager
u. Power box with concealed wiring for providing electrical connections of proper rating to all the units

1.8 IMAGE MANAGEMENT SYSTEM

s. Documentation system for digital storage of still images, video sequences and audio files.
t. Latest processor & HDD, which should be specified
u. Largest possible RAM, which Should be specified
v. Integrated DVD/CD writer with maximum speed which should be specified
w. Compact key board with drape
x. Cordless mouse
y. All types of connecting cables (BNC, DVI) and connectors, which should be specified
z. Flat screen colour monitor of 1024x768 resolution with all connectors and connection cables (BNC, S-VIDEO(Y/C), VGA), which should be specified
aa. Separate mobile cart with lock and key for housing all the components of the image management system

1.9 CARBON DIOXIDE CYLINDER

Two large size cylinders with required regulators and connecting pipe to the insufflator
Gas tubing – 4

3.10 HAND INSTRUMENTS & OTHER ACCESSORIES

Sr. No.	Instrument	Specification	Qty
1	Reusable Veress Pneumoperitoneum Needle	Spring loaded blunt stylet luer lock length 10/15cm/12cm	4 each
2	Reusable Trocar:- 5mm	Multifunctional valve, insufflation stopcock and threaded sleeves, pyramidal tip, length (10.5cm) Flapper valve	4

3	Reusable Trocar:- 10/11mm & 12 mm	Multifunctional valve, insufflation stopcock and threaded sleeves, pyramidal tip, length (10.5cm) Flapper valve	4 each
4	Suction and Irrigation cannula	Size 5mm, length 36cm, used with suction and irrigation handle, size 10 mm also, Reusable suction irrigation tubing set, Multifunction suction irrigation handle with provision for using 5/10mm diameter auxillary instruments.	2 each
5.	Grasping forceps-toothed 2x4 teeth	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility, size 10mm	2 each (5 & 10mm)
6.	Grasping forceps-toothed 2x3 teeth	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility, size 10mm	2 each (5 & 10 mm)
7.	Maryland forceps	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility,	2
8.	Grasping forceps-Atraumatic	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility	2
9.	Grasping forceps-Allis	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility	2
10.	Grasping forceps Mixter	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility	2
11.	Grasping forceps-plain dissection & Grasping	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility	2
12.	Grasping forceps-Babcock	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility, size 10 mm	2 each (5& 10mm)
13.	Fan shaped retractor	Rotating, size 5mm length 33-36cm, dismantling facility	2
15.	Hook Scissors,	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility	2
16.	Rotating Metzenbaum Scissors	Double action jaws, rotating with connector pin for unipolar coagulation, size 5mm, length 33-36cm, dismantling facility	2
17.	Bipolar coagulating forceps	Size 5mm, length 33-36cm fenestrated	2
18.	Bipolar coagulating forceps	Size 5mm, length 36cm, 3mm width of jaws	2
19.	High Frequency Cord.	For 5mm & 10mm hand instruments with Monopolar Electrodes, spatula tip, needle electrode	2 each
20.	High Frequency Cord.	For 5mm & 10mm hand instruments with Monopolar Electrodes, hook tip, knife electrode	2 each
21.	Knot pushers	Eye type, length 33-36cm	2 each for intra and extra corpal knotting

22.	Needle holder coaxial type	Size 5mm, tungsten tip, straight handle with ratchet, single moving jaw, length 33-36cm	2 with carbide insert tips for straight and curved needles
23.	Clip Applicator-Medium Large	Rotatable, Provision for locking the shaft conveniently, 10mm, compatible with clip LT 300	2 quoted with adequate no. of spare clip
24.	Clip Applicator- Large	Rotatable, Provision for locking the shaft conveniently, 10mm, compatible with clip LT 400	2 quoted with adequate no. of spare clip
25.	Hassan cone	Adaptable to 10mm trocar	2
26.	Blunt Obturator	For 11mm port	2
27.	Reducer	From 10/11 mm to 5mm & 5 to 3 mm	2
28.	L-Hook	Size 5mm, length 33-36cm with pin for cautery	2
29.	Spatula	Size 5mm, length 33-36cm with pin for cautery	2
30.	Fascia closure instrument	Size 2.8mm, length 17cm	2
31.	Washers	For 5 & 10 mm cannula and reducers	100 each
32.	Container System: Metal & Plastic	For Sterilization and storage of telescopes, hand instruments and other accessories. Different sizes.	3
33.	Metzenbaum scissors	High performance with bipolar cautery	2
34.	Large operating scissors	With double action jaws (slightly curved) Rotatable 10mm diameter instruments with a working length of 33-36cms, dismantting facility.	2
35.	Assistant needle holder	5mm diameter instrumentations with a working length of atleast 33-36 cms with carbide insert tips for straight and curved needles.	2 for straight & curved needles with carbide insert tip
36.	Disposable extraction bags		
37.	Injection and puncture canula	5 mm diameter, 33-36cms length with leur lock.	2
38.	Myoma screw	5 mm, 33-36 cms length, 10mm	2
39.	Uterine Manipulation	LAVH, mobilization of uterus, indentification of vaginal fornices and sealing of vagina during hysterectomy.	
40.	Electronic morcillator	With cutting sleeve and protective sleeve along with spare knife (Fully autoclavable)	

41.	High frequency monopolar cables	For above auxillary instruments.		N
42.	Hight frequency bipolar cables	For above auxillary instruments.		ote :
43.	Morcellator with accessories	• Morcellator tube serrated edge • Atraumatic trocar sleeve with pyramidal trocar • Claw forceps insert 2 x 3 teeth • Insulated sheath • Laproscopic Bag	Insulated handle with HF connection rotating with ratchet	Insulated outer sheath for all forceps and scissors
44.	Cleaning accessories	• Cotton carrier with thread • Cotton carrier with "U" shaped handle • Cleaning brush • Brush for cleaning jaws • Oil dropper • Wadding silver polish • Special lubricating oil		3.1

EO COLOUR PRINTER

- For endovision camera and multi colour systems existing in country.
- Large colour prints of video images with outstanding quality at least 4 different Images can b stored and printed on one sheet.
- Memories at least 4 rame, should be compatible with any monitor and should be Supplied with all connecting cables, satisfying international quality controls, safety Norms and power supply.

4 System Configuration Accessories, spares and consumables

4.1 System as specified

4.2 ACCESSORIES:- All Possible accessories of the equipments should be quoted. The specific accessory and its quantity will be decided on the basis of actual requirement

4.3 The system should be capable of accepting standard accessories of major international brands, which should be specified and for which suitable adaptor, if required, is to be provided

4.4 The codes and rates of all relevant individual accessories should be quoted separately with clear mention of period of validity of rates

5 Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0-50 deg C and relative humidity of 15-90%

5.2 The unit shall be capable of operating continuously in ambient temperature of 10-40deg C and relative humidity fo 15-90%

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian power-plug

6.2 Deleted

6.3 UPS for all systems of adequate rating for power supply to the system for 60 minutes.

7 Standards & Safety

7.1 Should be FDA/CE or BIS approved product

7.2 Manufacturer and Supplier should have ISO certification for quality standards.
7.3 Electrical safety conforms to standards for electrical safety IEC 60601-1 General Requirements (or equivalent BIS Standard)
7.4 Shall meet internationally recognized standard for Electro Magenetic Compatibility (EMC) for electromedical equipment : IEC-60601-1-2 :latest edition Or Equivalent BIS) or should comply with 89/366/EEC; EMC-directive as amended
7.5 Certified to be complaint with IEC 60601-2-2 Medical Electrical Equipment part 2-2: Particular requirements for the safety of equipment mentioned above – wherever applicable

8 Training

8.1 Comprehensive training for staff of user department and support services till familiarity with the system.

9 Warranty & Service

9.1 Comprehensive warranty for 2 years and 5 years Comprehensive Maintenance service after warranty. The cost of CMC must be quoted in the price bid.
9.2 Percentage of uptime guarantee of the equipment during warranty and CMC period for which commitment is to be given must be specified with acceptance of applicable penalty clauses in case of failure to do so.
9.3 After sales services must be provided in the city of installation. In situations requiring service/repair of the unit outside the city of installation, the expenditure on account of this will have to be borne by the supplier.

10 Documentation

10.1 Product Literature in original along with that of accessories and indigenous components if any Photocopies/computer generated copies are not acceptable
10.2 Statement of compliance with tender specification with clear and unambiguous links to relevant portions of product literature/authentic doucument, which should be hightlighted. Alternatives provide for noncompliant specification with justification must be described in details with supporting literature.
10.3 Certificate of Compliance with standards and approvals stated above
10.4 Certificate of manufacturer/principal reagarding authorization of service facility provided by the supplier
10.5 List of Equipment available in the Service Centre for providing calibration and routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.
10.6 List of important spare parts and accessories, which are required for maintenance and repair, with their part number and costing.
10.7 Terms and conditions of warranty and CMC including schedules of visit by service personnel with check list services to be carried out
10.8 Commitment for supply of log book with check list for daily, weekly, monthly and quarterly preventive maintenance with contact details of service personnel along with the equipment. The job description of the hospital technician and company service engineer should be clearly spelt out in the log book.
10.9 List of users of quoted model with performance certificate from major hosopital.

Schedule No - 37

Clinical Endothelial Micrcoscope (Endothelial Microscope for Evaluation of Patient Cornea)

Clinical Specular Microscope with three modes Auto, Semi-Auto and Manual
Color LCD Screen
Chinrest: Adjustable, Motorized
Photographic Coverage: 0.25 x 0.5mm
Capturing Magnification: 150 X
Pachimetry Measurement: 0.01 mm step
Working Distance: 25mm
Flash Intensity High/ Low
Fixation Targets: 1 Central 4 Peripheral (S,T,I,N /12, 2, 6, 10 o' clock)
Photo Targets: Auto / Semi-auto / Manual
Image Memory 5 images for each eye (total 10 images)
Monitor 5.6 " Color LCD (Minimum)
Base Travel X±46mm, Y ± 14mm, Z ±20mm
Head Travel X±10mm, Y ± 14mm, Z ±10mm
Power Voltage 220V-240V
In Built Printer
Accessories:

2. Motorized Table with foot control
3. Print Rolls : 10
4. Dust Cover : 1

Schedule No - 38

CHART PROJECTION FOR PEDIATRIC PATIENTS

Projection Distance : 1.5 – 10 m
Refraction Distance : 2.5 – 8m
Projection magnification : 30x in 5m refraction
Chart rotation speed : 1 frame average 0.2 sec
Chart : 33 Pcs opto types
Lamp : 6V 20 W
Must have charts for infants and pediatric patients
Accessories requied : Remote control, Table stand, Screen, dust cover, fuse, power cable.

Schedule No - 39

Synaptophore

Movement of optical tubes : Horizontal	Adduction	+ 50 degrees	
	Abduction	- 40 degrees	
	Vertical Hyper	30 degrees	
	Hypo	30 degrees	
	Torsional	Incyclo	20 degrees
		Excyclo	20 degrees
Slide illumination :	by Rheostat controlled 6V lamp for each slide		
	After image illumination by 12V lamp		
Auto flashing :	Auto flashing of slide illumination either simultaneously or alternatingly in rapid and vertical modes.		
Mode and Mode selection :	Five modes of slide illumination namely normal, flashing and autoflashing can be selected by a single selector knob.		
Haidinger Brush :	One Haidinger Brush attachment alongwith rheostat for speed control and switch for direction reversal.		
Standard accessories :	sest of all the slides		
	Two Haidinger Brush attachments		

Motorized table and wooden table top with boxes for slides and HB.

Schedule No - 40

KERATOMETER

Measuring range :			
Corneal radius of curvature	:	6.5 mm -9.4 mm	
Corneal refractive powder	:	35-52D (35.0-52.0D)	
Axis of Corneal astigmatism	:	0-180º	
Minimum reading	:	5º	
Movement range :			
Vertical	:	30 mm	
Horizontal	:	110 mm	
Back & Fourth	:	76 mm	
Vertical movement of chin rest	:	78 mm	
Power	:	AC 100 V, 115 V, 220V, 240 V	

Motorized instrument stand

Schedule No - 41

WHOLE BODY COMBINED UV THERAPY UNIT

Description of Function

Whole body UV treatments, i.e, the trioxsalen (TMP) bath PUVA, the NB-UVB, and the UVA plus UVB phototherapy.

Operational Requirements

System complete with all accessories should be quoted

Technical specifications

1. Whole body unit should be equipped with minimum 24 UVA + 24 NB UVB tubes
2. Unit should have shape to match the human contour
3. Unit Should have constant monitoring of UV and electrical power levels with real time readings.
4. Unit should have Viewing window to monitor patient during treatment.
5. Unit should have open-top phototherapy unit to prevent claustrophobia.
6. Unit should have safety screen snaps out for easy lamp replacement.
7. Unit should have hand rail and non-skid floor for patient safety.
8. Dose limit should be preset and cumulative doses should be displayed instantaneously.
9. Unit should have built in memory system, which avoids error in treatment.
10. System should switch off automatically with warning alarm at the end set irradiation time.
11. Homogenous all round irradiation is required.
12. Safety interlock to automatically shut the unit off when the door is open.
13. Unit should have perimeter flow ventilation for increased patient comfort.
14. Unit should work with 230 V +/-10V, 50Hz, single phase.
15. Unit should have 10-foot, 4 conductor # 10 AWG power cable included.
16. Unit should have depth of 49 inches, width of 46 inches and height of 82 inches.

Shall meet IEC-60601-1-2 :2001 (Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility or should complay with 89/366/EEC:-directive

Standards, Safety and Training

Should be FDA, CE, UL or BIS approved product

Manufacturer should have ISO certification for quality standards.

Comprehensive warranty for 2 years and 5 years CMC after warranty including UPS.

Comprehensive training for lab staff and support services till familiarity with the system.

Schedule No - 42

Equipment specification for hand foot UV phototherapy device

1. Unit should have 311 nm NB-UVB Lamps, eight in number.
2. It should work with 220V VAC 50Hz, 3.0 Amps with grounded plug.
3. It should include goggles and user's manual.
4. Unit should have sturdy, protective lamp shield and electronic digital timer.
5. It should be shipped fully assembled.
6. It should include Hand/Foot Cart.
7. Unit should include UPS and back up batteries.
8. Ventilated fans should be included.
9. Comprehensive warranty of 3 years.
10. Should be FDA, CE or BIS approved.

Schedule No - 43

Specification for Multi Application Laser Plateform

1. Equipment should be approved by USFDA
2. Should have inbuilt Power Meter
3. Should have Ability to store & Locate each patient's record compatible to Microsoft office
4. Should have Pre Programmed treatment parameters
5. Should have Long Pulse Nd: YAG with Cool Tip for Treatment of Leg Veins, Large Telangiectasias, Hemangiomas

    - Should have 1064nm Wavelength
    - Should have 2-20ms Pulse Duration
    - Should have 5-100ms Pluse Delay
    - Should have Multi Sequential Pulsing
    - Should have Repetition Rate up to 1 Hz
    - Should have Energy Density between 10-200J/cm Square
    - Should have 3 spot Sizes : Small-2mm x 4 mm, Medium: 6 mm, Large: 10 mm

6. Should have IPL System with one Treatment Head with Cool Tip for various skin Treatment, Vascular Lesions, Pigmented lesions, Hemangiomas, Angiomas, Light & Deep Pigments, Skin rejuventation & Collagen Stimulation:
    - Should have 6-7 IPL Wavelength: 515nm, 560nm, 590nm, 615nm, 640nm, 695nm, 755nm
    - Should have 3-100ms Pulse Duration
    - Should have 1-120ms Pulse Delay
    - Should have Multi Sequential Pulsing
    - Should have Repetition Rate up to 1 Hz
    - Should have 2 Spot Sizes : Small- 8mm x 15mm, Large: 15mm x 35mm
    - Should have Optimum Pulse technology

7. Should have Diode Laser with Cool Tip for Hair Removal
    - Should have 800nm Wavelength
    - Should have Pulse Duration between 5-400ms
    - Should have Repetiton Rate up to 2 Hz
    - Should have Energy Density between 1-100J/cm Square
    - Should have Spot Size of 9mm x 9 mm
    - Should have 6 KVA Online Up
    - Should have 5 Physician Safety Goggles for each technology
    - Should have 2 Eye Shield

    Year wise rate of CMC to be quoted for 5 years. In Case if firm is based outside India, Indian Agent for service should be located in Delhi/NCR. Preference will be given to company with direct sales & service operations in all metros of India. There should be prompt after service to reduce breakdown time to maximum of Two days.

Schedule No - 44

List OF SURGERY INSTRUMENT

BASIC GENERAL SET – Total 5Set

S. No.	Instrument Name and Size	QUANTITY
1.	B P handle No. 3	1
2..	B P handle No. 4	1
3.	Dissecting forcep (toothed) 150 mm	1
4.	Dissecting forcep (plain) 150 mm	1
5.	Dissecting forcep (toothed) 200 mm	1
6.	Adson's plain dissecting forcep 150 mm	1
7.	Adson's toothed dissecting forcep 150 mm	1
8.	Dissecting forcep (plain) 200 mm	1
9.	Mayo's straight scissor 185 mm	1
10.	Mayo's curved scissor 185 mm	1
11.	Metazenbaum's curved scissor 180 mm	1
12.	Straight dressing scissor 150 mm	1
13.	Artery forcep mosquito straight 125 mm	6
14.	Artery forcep mosquito curved 125 mm	6
15.	Artery forcep crile straight 140 mm	6
16.	Artery forcep crile curved 140 mm	6
17.	Artery forcep kocher straight 140 mm	6
18.	Artery forcep kocher curved 140 mm	6
19.	Artery forcep spencer well's straight 200 mm	6
20.	Artery forcep spencer well's curved 200 mm	6
21.	Mayo's heager's needle holder 12.5 cm	1
22.	Mayo's heager's needle holder 15 cm	1
23.	Mayo's heager's needle holddr 20 cm	1
24.	Towel clip cross action 125 mm	6
25.	Tissue forcep Allis 150 mm	6
26.	Tissue forcep Babcock 150 mm	2
27	Retractor langenback 3.5 * 1.5 cm	2
28.	Retractor langenback 4 * 1.1 cm	2
29.	Sponge holding forcep	2
30.	Scoop / Curette	2

Total Requirement 5 set (Five)

LAPAROTOMY SET- Total Requirement -2 set (Two)
(To be used with basic general set)

S. No.	Instrument Name and Size	QTY
1.	Retractor Deaver (different size set)	1
2..	Kelly 's deep blade retractor	2
3.	Doyen's retractor	2

4.	Hernia dissector	2
5.	Gallbladder forcep Lahey's	2
6.	Bowel holding forcep Hamilton Bailey	2
7.	Gallbladder forcep Moynihans	2
8.	Pool's straight suction instrument	1

GASTRECTOMY SET - Total Requirement 1 set (One)
(to be used with basic general set)

S. No.	Instrument Name and Size	QTY
1.	Intestinal occlusion clamp Doyen's straight	1
2..	Intestinal occlusion clamp Doyen's curved	1
3.	Intestinal occlusion clamp Payer's small	1
4.	Intestinal occlusion clamp Payer's large	1

CHOLECYSTECTOMY & CHOLECYSTEOSTOMY - Total Requirement 3 set (Three)

(to be used with basic general set & Laprotomy set)

S. No.	Instrument Name and Size	QTY
1.	Gall bladder forcep Desjardine	1
2..	Common bile duct Probe bake	1

ADDITIONAL INSTRUMENT - Total Requirement 2 set (Two)

S. No.	Instrument Name and Size	QTY
1.	Humby's Skin Grafting Knife	1
2..	Vein Stripper with universal handle and sterile box	1
3.	Bulldog vascular clamp 6cm	1
4.	Satnsky vascular clamp	2
5.	Debeky vascular clamp 6 cm	1
6.	Yeoman's rectal biopsy instrument	1
7.	Llyod davis rectal clamp	1
8.	Hemmrhoidal forcep	1
9.	Foley's cather introducer	1
10.	Doyen's raspatouer ma (both)	1
11.	Periosteal elevator	2
12.	Tracheal dilator	2
13.	S.P.C. trochar	2
14.	Rib spreader	1

NOTE-
The instrument must be of International quality
Must be supplied with sterilization kit/ tray having sterilization indicator & Bacterial Filter

Schedule No - 45

O.T. INSTRUMENTS –(Urology)

Equipment	Required
Artery forceps (Mosquito) • Medium • Size • Large	 18 18 18
Needle Holder • 3” • 4” • 6” • 8”	 4 4 4 4
Allis forceps • 6” • 8”	 10 10
Scissor- Mayo’s • 6” • 8”	 4 4
Fine scissors • 4” • 6”	 4 3
Small blade scissors • 6” • 8”	 5 5
Forceps • Tooth • Plain	 4 4
Retractors • Right angle • S-shaped • Small • Medium • Large	 4 4 3 3 3
Blade holder • 3” • 4”	 5 5
Kidney retractor	 6
Vascular clamps-all size	 2 set each
Stone holding forceps (all size)	One set
Webcock forceps (all size)	3 set
Towel Clip	22

Sponge holding forceps	10
Fine dissecting forceps	6
Kochers forceps (curved) • 6” • 8”	 4 4
Rib respiratory (right and left)	4 each
Bone cutter (all size)	One set
Bone nibbler	4
Per osteum elevator	4
B.P. apparatus (mercury type)	3
Stethoscope	3

Schedule No - 46

Specification for Endo Cystoscopy & TURP Set

TURP / Cystoscope

- Telescope should have of 4mm 30º wide angle
- Should have standard obturator 24 fr.
- Should have Outer-Continuous Irrigation-Sheath, 26 Fr.,
- Should have Inner-Continuous Irrigation-sheath, 24 Fr
- Should have Rotatable connecting part for rotatable Resectoscope- Sheaths 24 Fr.
- Working element should be of Ergonomic designed rotatable thourgh 360º
- Cutting electrode loop should be of 0-3 mm wire.
- Cysto-Urethroscope Sheath, Should be 19.5 Fr with obturator
- Should have Coagulation electrode, large
- Should be provided with adaptor with one instruments channel.
- Should be provided with H.F. Cord.
- Should be provided with Alligator Flexible forceps
- Should be provided with flexible biopsy forceps.
- Should be provided with flexible connector
- Evacuator

Specification for Urethrotomy Set

- Should have 20,5 Fr. Sheath, with irrigation and aspiration tab, oblique distal tip and automatic locking mechanism; for telescopes 4mm, 0 and 12 degs
- Hollow obturator
- Should have Guide tube with latering opening
- Working element, should have passive, for telescope 4 mm
- Should be provided with Solid stricture scalpel, Lancet electrode

Schedule No - 47

SPECIFICATION OF PNCL SET

PNCL Set 20.8 Fr.

1. PANOVIEW PLUS operating telescope with laterally offset eyepiece, 12 Deg, 14 Fr. Instrument channels, automatic valve with sealing membrane and sealing cap working length should be 224 mm.

2. Amplatz sheath, 24.3 Fr. For application of Nephroscope with sheaths up to 24 Fr. Working length 150 mm

3. Sheath 20.8 Fr.

4. Hollow Obturator

5. Telescope dilator. 9-27 Fr. for use over a J-guide wire Consisting of :1 hollow guide rod 6 Fr. , 7 telescope dilators 9-27 Fr.

PNCL 24 Fr.

1. Universal Nephroscope, 24Fr. should be with oblique Eyepiece, 20º angle of view, capacity 3.5 mm working length should be 224 mm

2. Amplatz sheath should be 24.3 Fr. for application of Nephroscope with sheaths up to 24 Fr. working length should be 150 mm

4 Sheath 24Fr.

5 Hollow Obturator

5. Telescope dilator should be 9-27 Fr. for use over a J-guide wire, Consisting of 1 hollow guide rod 6 Fr and 7 telescope dilators 9-27 Fr.

PNCL 27 Fr.

1. PANOVIEW operating telescope, 25 deg, with oval probe channel for 4 mm accessory instruments, working length should be 195mm.

2. Operating sheath 27 Fr. with rotatable irrigation tap

3. Dilator 30 Fr. to fit over 27 Fr. Dilator

4. Telescope dilator 9-27 Fr. consisting of: 1 hollow guide rod 6 Fr. and 7 telescope dilators 9-27 Fr.

PNCL Set 27 Fr.

Nephroscope 01

- Should be autoclavable and suitable for processing with all normal methods.
- Should be angle of view of 25º
- Should have oval instrument chanel of 4 mm auxitiary instruments can also be use for irrigation or aspiration.
- Should have working length of 195 mm
- Should come with operating sheath with irrigation outlets at the distal tip, including hollow obturator for use over a J-guide wire with swiveling irrigation tap size 27 Fr WL 175 mm
- Should produce large, bright image with optimum depth of focus
- Should come with rigid forceps alligator jaws
- Should come 3.5 mm rigid three pronged
- Should come with 3.5 mm with peanut shape

PNCL 24 Fr.

1. Universal Nephroscope, 24Fr. should be with oblique 01

   eyepiece, 20º angle of view, capacity 3.5 mm

   working length should be 224 mm

2. Amplatz sheath should be 24.3 Fr. for application of 01

   Nephroscopes with sheaths up to 24 Fr.

   Working length should be 150 mm

3. Sheath 24 Fr., 01

4. Hollow Obturator 01

5. Telescope dilator should be 9-27 Fr. for use over a 01

   J-guide wire, Consisting of:

   1 hollow guide rod 6 Fr. and 7 telescope dilators 9-27 Fr.

6. Stone grasping forceps, diam. 3,5 mm, working length 250 mm 01

7. Three-pronged stone grasper, diam. 3.5 mm, WL 350 MM 01

8. Stone forceps rigid, finely serrated jaws “peanut shape” 01

PNCL 20 Fr.

1. PANOVIEW PLUS operating telescope with laterally offset eyepiece, 01
   12 degs., 14 Fr. instrument channel, automatic valve with sealing
   Membrane and sealing cap

2. Sheath 20,8 Fr. round, distal tip straight, with swiveling irrigation 01
   Connector and automatic locking mechanism

3. Amplatz sheath 24,3 Fr. suitable for nephroscopes with Sheath up to 24 Fr., WL 150 mm 01

4. Obturator, hollow 01

5. Telescope dilator 9-27 Fr. consisting of: 1 hollow guide rod 6 Fr. 01

   And 7 telescope dilators 9-27 Fr.

6. Dilator 30 Fr. to fit over 27 Fr. dilator out 01

7. Stone grasping forceps, diam. 3.5 mm, working length 350 mm 01

8. Three-pronged stone grasper, diam. 3.5 mm, WL 350 MM01

9. Stone forceps rigid, finely serrated jaws "peanut shape" 01

Schedule No - 48

SPECIFICATION OF FIBER-URETERO-RENOSCOPE (6/7.5 Fr.)

- Fiber-Uretero-Renoscope-E-LINE-. By Marberger,
- Should have Angle of view 5º , with offset eyepiece,
- Should have 6/7.5 Fr.
- Should have Working Length 430 mm
- Should have Distal tip of sheath 6 Fr.
- Should have Oval irrigation 4.2 x 4.6 Fr.
- Should have Instrument channel 1 x 4 or 2 x 2.2 Fr.
- Should have accessory instruments of max. 4 Fr.

SPECIFICATION OF FIBER-URETERO-RENOSCOPE (4.5/6.5)

- Compact Needle Operating Fibre Uretero-Renoscope
- Should have Angle of View 5 degr.
- Should have 4.5/6.5 Fr.
- Should have Instrument channel11 x 3 Fr.
- Should have Working length 430 mm

SPECIFICATION OF FIBER-URETERO-RENOSCOPE (8/9.8)

- Fiber-Uretero-Renoscope "E-line", Compact 8 /9,8 Fr. by Marberger,
- Should have Oval irrigation and instrument channel (5,2 x 6,2 Fr/1 x 5 or 2 x 3 Fr.) for accessory instruments of max 5 Fr.
- Should have Angle of view 12º with offset eyepiece
- Should have Distal tip of sheath : 8 Fr.
- Should have working length 43 mm

DIGITAL 3 CCD CAMERA

MODEL : ECS 333

- Microprism Technology
- Digital Signal Processing for high Quality colour reproduction
- 3 X ¼" High Sensitivity CCD
- Resolution : 750 CCD Lines
- Sensitivity -.5 lux
- 2 buttons on camera head for white balance, printer
- Sterlization by Gas, Completely Soakable,
- Multilens endo focus objective
- Foccussable Camera Coupler
- Easy Focussing with rotatable ring.
- Adaptable to all rigid endoscopes (Eye Piece)
- Programmable keys for all settings in CCU
- Automatic white balance
- PC Interface for service
- On Screen display
- with Universal Coupler
- 300 Xenon light source with 5 mtrs flexible Light Cable

Schedule No - 49

Specification for Gel Documentation System for Chemi and fluorescence application

1. System should have high resolution Interlined CCD camera with > 4 mega pixel resolution with 1392x1040 pixel array.

2. Data acquisitions: 16 bit and 65, 536 gray level

3. Pixel Size : 4.65x4.65 micron

4. System should have light tight cabinet to provide increase sensitivity to minimize background noise. The sample tray should extends out as a drawer, enabling the user to perform band excision

5. System should have Peltier Supercooled CCD camera with -50 deg temperature from ambient or -25C absolute

6. System should have motorized control for Zoom, aperture & Iris with f/1.2, 12-75 mm lens with broad range amber filter

7. User control of camera Bin & Gain setting, 2 gain setting and 3 bin setting (1x1,2x2,3x3) for getting more sensitivity should be there in the system

8. System should have dynamic flat fielding for error free quantization(algorithm to correct any spherical aberration occurred during experiment) and CV < 5 % by correcting lenses and optics

9. UV and white light source : 302 nm illumination source having maximum sample size of 28x36cm and maximum image size of 25x26cm with White Light Transilluminator(25x26cm)

10. System should have multiple illumination sources for imaging opaque samples

11.System's dynamic range should be more than 4 order of magnitude

12. System should come with a software for image acquisition & analysis and should serve the following purpose:

Automated Workflow:

- Executes preprogrammed and user-created protocols to perform imaging experiments from image capture to analysis to printed reports with a single click of the mouse
- Ensures that workflows are reproducible

System Optimization at Setup

- Selects the proper settings for optimum detection conditions of the sample stain, label, or light-emitting reaction
- Uses proprietary algorithms to calibrate the system for automatic control of focus at any zoom level and automatic correction of imaging artifacts
- Performs flat fielding corrections specifically and consistently for every application

Automated or Manual Data Analysis

- Performs all the image analysis steps automatically; can be user-modified for more precise band detection, control of background level, and choice of lane
- Updates results tables instantly when experimental parameters are changed
- Offers optional manual image analysis for adjustments by the user in every step
- Displays MW (or base pair) values and presents a quantitative comparison to evaluate sample purity and identify sample components for all bands and lanes

Customized Data Tables, Reports, and Visuals

- Generates a customized data table with all sample information organized lane by lane and band by band each time a data analysis is performed or modified
- Copies any part of a data table to popular document processing applications such as Adobe Acrobat, Microsoft Word, or Microsoft Excel
- Provides multiple tools for displaying, viewing, and annotating images; imports Image Lab software visuals directly into publications and presentations

Schedule No - 50

MULTI CHANNEL PIPETTES

- Light weight electronic Pipette for high Professional Standards that provide optimal support in work
- Only one multi function rocker for liquid aspiration & dispensing.
- To provide thermal, mechanical and chemical stability piston should manufactured with the combination of Fortron and PEEK material
- Piston should automatically return Zero position when tip is ejected.
- Should have in built help menu.
- Spring loaded tip cone that provide maximum tightness with minimal attachment force.
- Pipette should have a counter for counting the pipetting action
- Pipette should have Li-Polymer battery that provides long service life without charging (maximum of 8 hours without charging)

- Provision to adjust pipette for Altitute above sea level from 0 – 5000 m, 75% Ethanol and 50% Glycerol
- Pipette should work continues while charging.
- Parameters should be in the same position regardless of the mode
- Provision to autoclave the lower parts
- Should have provision for removing individual channels (in Multichannel Pipette) to adjust the distance between channels.
- Provision for electronic labeling to prevent an accidental exchange or loss
- Should have adjustable volume range from (5- 10Ul, 20- 200 uL, 10 – 100 uL & 100 ul – 1 mL – 2 each (Microbiology) & 20 Each (Biochemistry)
- Should be supplied with 1000 disposal tips for all.

Should have Documentation Certificate of calibration and inspection from factory.

Schedule No - 51

Specifications of Real Time PCR system

The system should be suitable for Viral load , Pathogen Detection , Oncology , Genetic disease detection , Drug resistance analysis , DNA methylation study , SNP (Single nucleotide polymorphism) Detection , Quantification of Gene Expression

- Even illumination with Light Tunnel for accurate and precise results without the need for a reference dye.
- Five band-pass filters each for excitation and emission should be included for multiplexing,
- true five-color multiplexing should be possible
- Use the Melting curve analysis module to measure the melting points of amplicons in real-time.
- The high-performance 2D CCD sensor to collects information from all 96 wells simultaneously, removing any detection-lag deviations and producing accurate results.
- Temperature gradient function allows a 1~20°C temperature gradient across the plate within 40~75°C, make it easy to find the optimal annealing temperature.
- Time increments and temperature increment controls allow for touch-down PCR applications.
- The light source provides even excitation from 480 to 680 nm, allowing the use of various fluorescent dyes.
- The dynamic range of detection should be wide at over 10^9.
- A user-centric GUI software lets users design and analyze experiments with ease.
- LT technology optics to remove well-to-well variation

• Sample capacity / size	• 96 well plate / 0.2 ml tubes
• Sample volume	• 20 ~ 100 µl (50 µl recommended)
• Operating temperature	• 15~30 °C
• Operating Humidity	• 20~80%, no condensation
• Method Heating / Cooling	• Peltier
• Temperature range	• 4.0°C – 99.9°C
• Temperature accuracy	• ± 0.3 °C
• Temperature uniformity	• ± 0.5 °C
• Ramping rate	• Max 2.5 °C/sec
• Temperature increment range	• 0.1 °C ~ 9.9 °C
• Lid temperature	• Within 90 – 120°C

• Time increment range	• 1 sec – 60 sec
• Gradient range	• 1°C – 20°C
• Operating system	• Windows XP & Window7 (32-bit OS only, S/W version 3.54.4 or later)
• Processor speed	• Intel Dual Core E2160 (1.8GHz) or higher
• Memory	• 1GB or higher
• Communication port	• USB 2.0 high speed
• Screen resolution	• 1280X1024 or higher
• Light source	• Short arc lamp (120W)
• Lamp life time	• 120 Watts
• Lamp life time	• 3,000 hrs
• Sensor	• 6-Bit 2D CCD
• Excitation Filter / Emission Filter	• 5 Sets

Schedule No - 52

SINGLE CHANNEL PIPETTES - ADJUSTABLE

- Spring Loaded Tip Cone for connecting tips very tightly
- Adjustment opening for adjusting pipettes to a specific liquid and volume.
- Control Button with very low operating force, Color indication for pipette volume.
- Tip ejector with very low operating force, positioned for perfect ergonomics.
- Volume Display: 4 Digits with magnifier.
- To provide thermal, mechanical and chemical stability piston should manufactured with the combination of Fortron and PEEK material
- Very easy removable lower part for cleaning pipette
- Fully Autoclavable
- No discoloration upon UV irradiation
- 2 Years Warranty

Volume range 0,1 – 2,5 µl, 0,5 – 10 µl, 2– 20 µl, 10 – 100 µl, 20 – 200 µl, 30 – 300 µl, 100 – 1,000 µl, 500 – 5,000 µl, 1000 – 10,000 µl

Six set - 01

		ACCURACY	REPRODUCIBILITY
I	0.5-10 ul	± 1%	1% - 0.5%
Ii	2-20 ul	± 1%	1% - 0.5%
III	10 – 100 uL	± 1%	1% - 0.5%
Iv	20 - 200 ul	± 1%	1.5% - 1%
v	100 - 1000 ul	± 1%	0.5% - 0.4%

Six set - 02

	ACCURACY	REPRODUCIBILITY
0.1-2.5 ul	± 1%	1% - 0.5%
0.5-10 ul	± 1%	1% - 0.5%
10 - 100 ul	± 1%	1.5% - 1%
0.5ml – 5ml	± 1%	0.5% - 0.4%
100 - 1000 ul	± 1%	0.5% - 0.4%

Schedule No - 53

GEL ELECTROPHORESIS Workstation

1. Compact bench- top clinical electrophoresis system for serum proteins, urine protein, haemoglobin, Lipo Protein and Immunofixation – Agarose Gel based.
2. Capacity to run 8-10 samples simultaneously on a single gel.
3. Should be equipped with special and dedicated Migration and Developing Unit. Drying facility should be inbuilt with developing Unit.
4. Should have integrated Display where current status is also displayed.
5. Should be equipped with external Gel scanning system with software for clinical electrophoresis interpretation and reporting.
6. No separate power pack should be required for running the system.
7. Software : User friendly software with facility for patient Demographics, Individual patient results, analysis and result printout.
8. Should have Multiple programme facility – upto 30 different programming facility should be available.
9. Voltage : Equipment to be operational on 220V , 50 Hz. Suitable UPS with 1Hr backup to run the equipment to be provided.
10. Agarose Gel based kits (Gels) compatible with the electrophoresis unit should be available.

Free Installation and in house training should be provided

Schedule No - 54
ANALYTICAL BALANCE

Sl. No	**ANALYTICAL BALANCE**
3.1	It should have weighing capacity of 220 gm, Readability: 0.1mg
3.2	Colored Touch Screen Display
3.3	Standard RS 232C for the PC interface
3.4	Fully automatic Time and Temperature internal Calibration with built in weight
3.5	Pace-setting interfacing flexibility - including Ethernet, Bluetooth (wireless connection) and PS/2 - for efficient data capture and easy network integration.
	Technical data:
3.6	Capacity : 220gm
3.7	Readability : 0.1mg
3.8	Repeatability : (+/-) 0.05 mg

3.9	Linearity : (+/-) 0.2 mg
3.10	Weighing Pan size : 78*73mm
3.11	Grid Type Weighing Pan
3.12	Response time : 3sec.
3.13	Display : Colored Touch screen
3.14	IR Sensors for hands-free operation for personnel security and Automatic draft shield opening and closing
3.15	Warns if the balance is not correctly leveled to ensure the accuracy of results.
3.16	Automatic and detachable draft shield
3.17	Detachable and adjustable Terminal
3.18	Alphanumeric data entry of 4 ID's
3.19	Integrated automatic safety functions for external routine operations
3.20	QM-Toolbox, including user administration and password protection
4	Power Supply
4.1	Power input to be 220-240VAC, 50Hz
5	Standards, Safety and Training
5.1	Should be FDA or CE approved product
5.2	Calibration/Acceptance test certificate from the factory required and certificate from department of weights & Measurement.

Schedule No - 55

Spectrophotometer

1	**Description of Function**
1.1	UV/Vis spectroscopy is routinely used in the quantitative determination of solutions of transition metal ions and highly conjugated organic compounds.The instrument used in ultraviolet-visible spectroscopy is called a UV/vis spectrophotometer. It measures the intensity of light passing through a sample (I), and compares it to the intensity of light before it passes through the sample (Io)In a double-beam instrument, the light is split into two beams before it reaches the sample. One beam is used as the reference; the other beam passes through the sample. Some double-beam instruments have two detectors (photodiodes), and the sample and reference beam are measured at the same time.
2	**Operational Requirements**
2.1	System should provide for analysis of Protein, DNA / RNA & Enzyme kinetics etc.
2.2	Microprocessor controlled Double beam spectrophotometer with scanning, kinetic and multi wave length facility ,Self check & self diagnostic facility and Auto wavelength calibration facility
3	**Technical Specifications**
3.1	Spectral: Wavelength Range 190-1100 nm Wavelength Accuracy:+/- 0.8 nm for full range Bandwidth < 2.0 nm Wavelength Reproducability:+/- 0.5 nm

3.2	Photometric: Photometric Accuracy + 0.005A at 1A Photometric Reproducibility + 0.002A at 1A Stability < 0.001A/nm Absorbance Range -3.000 to 3.000 Scanning Speed 6000 nm/min or better Stray light < 0.1% at 340 nm
3.3	Light Source : Xenon Lamp with 3 Years Warranty
3.4	Dual Detector: Photo Diode
3.5	Detection Mode %, Transmission & Absorbance
3.6	Large LCD display to view complete graphics
3.7	Multi position(six positions preferable) cell holder/chamber.
3.8	Must be supplied with 4 pairs of micro Quartz cuvettes (volume 10 - 200 ul or less), with suitable software for nucleic acid quantification, protein quantification and determination
3.9	Advance version of compatible computer & printer
3.10	Monochromator: 1200 lines/mm grating.

4 System Configuration Accessories, spares and consumables

4.1	As specified		

5 **Environmental factors**

5.1	Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
5.3	Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of less than 70%

6 Power Supply

6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2	UPS of suitable rating shall be supplied for minimum 1 hour backup for the entire system

7 Standards, Safety and Training

7.1	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
7.2	Should be FDA or CE approved product
7.3	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.

Schedule No - 56

Bio-Chemisrty Auot Analyser 16 channel

Equipment specification for fully automatic random access clinical chemistry analyzer with ISE module

1. Fully open random access system: the instrument should be capable of all routine STAT and special biochemical tests including specific proteins, Therapeutic drug monitoring, drug of abuse, immunoturbidemetric assays and user definable applications in blood, serum and urine. Equipment should be configured as per consignee requirements.
2. Equipment should have a throughput of not less than 600 tests per hour with ISE.
3. Must have ISE unit for Na, K,Cl measurement.
4. Must have self diagnostic tests with error message and online display.
5. Must be programmable for all test menus and state of art work station.
6. Must have built in cooled reagent compartment to maximize reagent stability and have atleast 60 positions for reagents.
7. Must have continuous loading of samples with on board capacity of atleast 80 permanent cuvettes with 5 years service life. Atleast 20 cooled position for calibrator and control.
8. Walk away time upto 4 hours. Should have pre and post auto dilution of sample and rerun capacity for out of range samples. Should have internal and external cleaning/ washing facility. Should accommodate atleast 70 samples in single run. Probes should be long life atleast 24 months. Calibration must be linear, non linear, factor, exponential, spline, loglogit or with auto diluted series of stock calibrator. Calibrator and control with repeat facility. Reagent refill massage and monitoring.
9. Automatic printout of reports and full patient demographic.
10. Probe dispenser must have level detectors and separate probes for samples and reagent R1 & R2. Cuvette mixing by variable speed atleast two stirrers for immunoturbidimetry tests. Must typically use between 2-25 micro litre sample. For pediatric samples minimum dead volume of sample cup not more than 20 micro litre. Reading volume 150 microlitre or less. Must have 7 or more step cuvette cleaning facility. Must have minimum water requirement of not more than approx. 20 litres/hr only.
11. Should be capable of performing endpoint, kinetic, turbidimetric, homogeneous and bichromatic assay facility.
12. Should have good real time QC programme with L-J graphs. Printout of QC charts and reports.
13. Spectral range 340-800nm by diffraction grating optics.
14. Light source halogen/xenon lamp should be covered under warranty.
15. Equipment should be supplied with external water treatment system, compatible servo stabilizer and compatible online UPS for entire machine with 1 hour backup.
16. Extensive data management software: compatible programmable windows based comprehensive data processing and management system. Graphical user interface software, LIMS capability. Complete back up of database for calibration control and patient sample results.
17. Provision for barcode reader facility.
18. Personal computer: Compatible desk top PC (microprocessor with speed not less than 3GHz, 2 GB RAM, 320 GB HDD, scroll mouse, multimedia kit, 56 kbps modem 32 MB AGP card, CD/DVD RW drive with 17" TFT digital colour monitors) with compatible operating system and compatible laser printer for documentation with minimum 600 DPI resolution, not<12 pages/min speed.
19. Complete service diagram and service manual and operating manual must be provided. Supplier must provide original documentary proof of the date and place of manufacturing of supplied equipment otherwise the equipment will not be accepted by the consignee.
20. Comprehensive and full training of all users by supplier for operating equipment and trouble free maintenance at installation point.
21. System should be supplied with necessary pre requisites and start up kits normal and abnormal QC & calibrators.
22. Please quote all the reagent kits for all the parameters as optional

Free reagents and consumables for testing, training & calibration.

Schedule No - 57

	Specifications - Mobile Examination Light based on LED technology (wall mounted - 10) to Examine Patient and One No. Floor mounted for OT.
1	Extremely flat, compact and aero dynamical surgical OT light based on innovative Phosphorus coated white LED technology.
2	The single light head should consist of several, symmetrically arranged light emitting modules, using multitudinous white LEDs to form a multi-lens matrix on a single light head for a shadow free and homogeneous illumination of the surgical field.
	Light Head :
3	Light-head made of power-coated aluminium die case.
4	Light-head having smooth and clean surfaces that are easy and safely to clean.
5	One-point suspended on articulating arm , diameter below 300mm
6	Light field should be adjustable from 22 cm to 30 cm and focusing via sterilizable handle in the center of the light head.
7	No heat emission through IR radiation.
8	High fail-safety through optical light system consisting of between 70 to 120 LED's, with its own lens. In case of failure of one light source (LED), the illumination of the light field is not affected.
9	There should be a Sterilizable knob at the lower side of the light head to control of all light intensity and other functions .
10	Lighting intensity at 1m distance : min.120,000 Lux or better
11	Size of light field at 1m distance : 18-28 cm
12	Colour temperature : between 4000k- 5500k (Fixed)
13	Colour rendering index : RA95 to RA97
14	R9 (deep saturated red colour index) : 95 to 96
15	Life span of main light source : 25,000 hours- 30,000hrs
16	Supply voltage : 110 - 240 VAC / 24V DC / 24 V AC
17	Mobile Light should be supplied along with battery back up of about 1hour.
18	LED Surgical Lighting system should meet applicable standards such as FDA or CE approved product.
	WARRANTY, CMC AND CERTIFICATION
	The unit should be supplied with a minimum warranty of 60 months after successful installation. The warranty must cover each and every part of the equipment and its accessories.
	The supplier should quote for both AMC and the CMC for a period of 5 years beyond the guarantee period and the stock of essential spares and its easy availability in India should be confirmed .
	The firm should have trained Engineers based in India to provide service within 48 hrs of call.
	The table should be having US-FDA or CE (European directive) certification

	The equipment should be designed to comply with existing international standards in terms of safety and performance i.e. ISO9001/ISO 13485, IEC60601 and UL Standard. Having EMI/EMC testing EN60601-1-2-2001-elevtromagnetic compatibility
	All technical specifications accepted in the compliance statement must be supported by printed literature from the firm.

Schedule No - 58

Cell Counter 5 Part

Fully Automatic Bench top Hematology Analyzer with Auto Loader
CBC+5DIFF mode, 24 Parameters including 5-part WBC differential: WBC, LYM, MON, NEU, BAS, EOS, LYM%, MON%, NEU%, BAS%, EOS%, RBC, HGB, HCT, MCV, MCH, MCHC, RDWcv, RDWsd, PLT, PCT, MPV, PDWcv, PDWsd
Measuring principles: Volumetric impedance method for WBC and RBC, Spectrophotometry for HGB, Laser light scattering technology for 5-part WBC differential
Throughput: 60 tests/hour
Sampling method: Open and closed tube system with automatic sample rotor, Ceramic shear valve with 3 separated primary loops
Sample volume: 100 µl of whole blood
Sample types: Human (general), male, female, baby, toddler and child (built-in reference ranges)
Tube Identification: Over on-screen or external keyboard (enter ID) over the barcode labels (manual barcode scanner and/or barcode scanner in Autosampler)
Dilution ratios: WBC/BAS 1: 170, RBC/PLT 1: 21250, 4 DIFF 1: 50
Chambers: 3 chambers for diluting whole blood and counting; 1:MIX, 1:RBC, 1:WBC+HGB
Aperture diameter: 70 µm (RBC/PLT), 80 µm (WBC/HGB)
HGB measurement: Integrated in WBC chamber. Light source: green LED with 540 nm wavelength.
Detector: light to frequency converter
Optical measurement: Optical Measuring Head with closed protective housing.
Light source: semiconductor laser diode with 650 nm wavelength and 7mW (Class IIIB).
Sample path: Quartz flow cell with hydro-dynamic focusing.
Detector: fi ber optic coupled PIN Si photodiodes with Internal safety interlock.
Auto-alignment system: Horizontal calibration of laser beam position.
Fine calibration: With calibration material (Polystyrene micro-particle or Polystyrene microsphere, 5 µm)
Clog prevention: High voltage pulse on aperture in each analysis cycle; chemical cleaning; High pressure backflush of aperture with Cleaner reagent
Cleaning procedure: High voltage burst of the aperture, high pressure back flush, chemical cleaning of the aperture with Cleaner reagent
Quality Control: Unlimited QC levels, QC parameters include: mean, ± range, SD and CV for all measured and calculated parameters, 16- and 64-day Levey-Jennings charts, separate QC database
Calibration: 3, 5 or 7-measurement SW supported automatic mode and manual (factors) calibration
Flagging: Warning Flags, Pathological (diagnostic) flags, Lab limits (normal ranges)
Reagents alert (internal buffers for reagents), Instrument alerts
Multi-user feature (advanced): Multi user operation with selective privilege levels.
User identification with ID and password
Languages available: English menu and support for other languages*
Host computer interface: USB ports, Ethernet port and RS-232 serial link.
Data back-up method: USB mass storage device; external Lab management system
Software upgrade method: USB port, using USB mass storage device
Data storage capacity: 100.000 records including flagging, 4-diff and BAS-scattergrams, RBC andPLT histograms

Printer Interface: External keyboard and mouse Via PS/2 or USB port
Display:800 x 600 dots, color graphic touch LCD, portrait layout
Barcode reader: Optional manual barcode scanner via USB, Built in barcode scanner in optional Autosampler

Schedule No. 59

MTP SUCTION FOR OBST. & GYANE DEPARTMENT

Should have following facility.

- Piston/cylinder system (self lubricating) approx. 70rpm
- Fast vacuum build up, vacuum capacity 50L/min, -90 Kpm/-675mm Hg
- Should be very quiet in operation.
- 3 ltrs double suction container, polysulfone, graduated with lid for overflow protection and 2 spare suction tuby.
- Separate foot on/off switch.
- operated on 220-240 V/50 Hz
- Mobile caster stand on 4 antistatic castor, 2 with locking device
- Equipment should be manufactured by well known International Company.

Schedule No. 60

.

Refrigerated Centrifuge

Equipment Specifications for Centrifuge Refrgerated,Table Top

UNSPSC Code: 41103904
ECRI Code: 18-265

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	The Refrigerated Centrifuge (RC) is a mechanical device used to separate biological substances of differing densities.		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Programmable microprocessor control system with self-diagnostic feature and IVD certified		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	Maximum speed: Approx. 4,000 rpm Swing-out / 14,000 rpm Angle		
3.2	Maximum RCF: 3,000 x g Swing-out / 20,000 x g Angle		
3.3	Maximum capacity: 4 x 250 ml Swing-out / 30 x 1.5/ 2 ml Angle		
3.4	Temperature range: -10°C / + 40°C.		
3.5	Digital displays for Programme No, temperature, Speed, RCF, & Time.		
3.6	At least 34 program memories		
3.7	Timer 1 - 99 minutes and hold position		
3.8	At least 10 acceleration / 10 braking rates		
3.9	Maintenance free induction motor		
3.10	Totally CFC free refrigerant fluid and insulation		
3.11	Angle Rotor: 30 x 1.5 / 2.0ml, with adaptors for 200/500/600ul		
3.12	Angle Rotor: 6x85ml with adaptors for different sizes and aerosol tight lid		
3.13	Swing-out Rotor: 4x250ml with aerosol tight cap and adaptors for different sizes		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	As specified		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.		
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input :220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz Three phase fitted with appropriate Indian plugs and sockets.		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should incorporate Safety Features for Imbalance detection, lid interlock, over temperature, rotor over speed etc		
7.2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450		
7.3	Should be FDA or CE approved product		
7.4	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.		
7.5	Should comply with IEC/TR 61010-3-020 :Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 3-020: Conformity verification report for IEC 61010-2-020:1992 Particular requirements for laboratory centrifuges"		

Schedule No. 61

WATER PURIFICATION SYSTEM

S.I.No	WATER PURIFICATION SYSTEM
1.2	Pre filtration Unit with Pretreatment cartridges with 5&1-micron Pre filters able to remove particles from tap water feed . The system should be suitable to draw water directly from the tap for purification. There should be no need for any additional booster pump
1.3	Pre filtration should be connected to second stage Purification System having Reverse Osmosis and conductivity cell after the RO Cartridge to calculate water rejections and efficiency of the RO Cartridge.
1.4	The system should not put any limitation on the quality of water that can be fed to the system.
1.5	Pump with unique temperature feed back mechanism for constant flow rate of product water at 15 litres per hour.
1.6	Resistivity cell with a flow through design and a cell constant of 0.01cm- for accurate measurement of resistivity.
1.7	Product Specs as follows
1.8	Resistivity: > 5 Meg Ohm.cm (typically 10-15)
1.9	Conductivity: < 0.2uS/cm (typically 0.067 to 0.10)
1.1	TOC: <30 ppb
1.11	Bacteria: <1cfu/mL
1.12	Silica: 99.9% rejection
1.13	Water Recovery: 15-18%
1.14	The above water has to be stored in a 50 Litres PE reservoir .
1.15	Purification pack tailored to specific feed water source containing mixed bed ion exchange resin/ micro filter / activated carbon for better purification for the longer life of cartridges.
1.16	Application Specific cartridges to remove ionic and organic contaminants to trace levels
1.17	7watt, low pressure mercury vapor lamp made of ultrapure quartz with dual wavelength (185 and 254nm) .The lamp has an electro polished 316L SS housing for maximum UV reflection to ensure reduction of TOC as well as destruction of bacteria.
1.18	Final filter with 0.22micron membrane filter in stack disc configuration for removal of bacteria and particulates.
1.19	The system should have an in-built 5000 Dalton TFF based filter which will have a service life of at-least 1 year. The UF filter along with the complet system should be sanitizable with in an hour to reduce down time.
1.20	Measure and display compensated and non-compensated temperature as per GLP standards.
1.21	Built in resistivity meter with a cell constant of 0.01/cm and 0.1degree C accuracy thermistor for accurate measurement of Resistivity. Resistivity meter can pass the USP suitability test monograph <645>

1.22	Optional Foot Pedal allowing hands- free operation with variable and fixed volume delivery to prevent contamination in specialized application.
1.23	Maintenance display for sanitization, exchange purification cartridges, activation of fast flush, depressurization, air purge for ease of use and minimum maintenance.
1.24	Product Water Specifications
1.25	Resistivity: 18.2 Meg Ohm.cm (@ 25 degree C
1.26	Conductivity: < 0.055uS/cm
1.27	TOC: < 5 ppb
1.28	Bacteria: <1cfu/mL
1.29	Flow Rate: 1.5L /min
1.30	Particulates > 0.22u : <1 P/mL
1.31	The system should have dual identical purification stages that will ensure the water quality even if one stage fails.
1.32	There should be a facility of sanitizing the entire water system and not just the UF filter. The sanitization process should be finished with in an hour.
4	Accessories, spares and consumables
4.1	Filters
5.1	Power input to be 220-240VAC, 50Hz
6.1	CE/BIS approved product
6.2	Calibration/Acceptance test certificate from the factory required.
6.3	Manufacturer/Supplier should have ISO certification for quality standards.
6.4	Quote from Manufactures or Authorized Single All India dealers.Franchise dealer state/region wise will not be entertained as their continued support has not proven reliable in our earlier procurement.
6.5	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.
6.6	Back to back warranty to be taken by the supplier from the principal to supply spares for a minimum period 10 years.
7	Documentation
7.1	User Manual in English
7.2	Service manual in English
7.3	Must submit user list and performance report within last 5 years from major hospitals.
7.4	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.

7.5	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
7.6	List of important spare parts and accessories with their part number and costing.

Schedule No. 62

Operational Requirements

- Internal Minimum Capacity 600-650 L net at least double door with adjustable At least 4- 6 shelves
- Range up to -75^{0}C to -80^{0}C(Adjustable)
- Vertical Cabinet (upright model)

Technical Specification

Construction:

- Solid rust free cabinet to prevent corrosion and lockable castor wheels. Inner surface should be stainless steel

CONTROL SYSTEM

- Micro-processor based temperature controller with digital temperature display LED/LCD with seven days graphic temperature recorder with rechargeable battery back up including charger maintenance free and insensitive to vibration. Details of battery and battery charger shall be indicated

Refrigeration System

- Heavy Duty refrigeration system, maintenance free, below -80^{0}C ($\pm$ 1* C) with hermetically sealed dual compressors, noise free and vibration free, air cooled with security lock to prevent unintentional switch off shall be supplied. It should have maximum cooling time of 4 – 5 hrs

Alarm

- It should also have audio visual Electronic Alarm System independent of power supply

Insulation

- High density polyurethane or equivalent Gaskets - Double seal silicon

Documentation

- Manufacturer should have ISO certification for quality standards
- Should have FDA/CE/BIS certification

Schedule No. 63
Dead body chamber Six bodies

Dead body chamber Six bodies
Specification for cold storage chambers for dead bodies
1. Corrosion free interior and exterior.
2. Audio visual alarm for high and low temperature.
3. Designed for long storage of cadaverous.

4. PUF insulation.
5. Special design ensuring best hygiene.
6. Reliable
7. Special loading trolley.
8. Energy efficient and sturdy construction.
9. Light weight.
10. Digital temperature indication.
11. Low maintenance.
12. Microprocessor based temperature control.
13. Double walled cooling units.
14. Outer body of the mortuary chamber is constructed out of thick S.S sheets. The inner chamber made of heavy gauge stainless steel sheet of SS-304 grade. The 100mm gap between the walls filled high grade poly urethane insulation, which ensures maximum thermal efficiency.
15. The doors connected by very sturdy chrome plate hinges and fitted with hard chrome plated lubricated latches for opening of the door.
The doors made of galvanized steel sheets, lined with stainless steel for extra protection and long life.
17. All the doors fitted with high quality neoprene rubber gaskets for airtight fittings with very sturdy casters.
18. CFC free compressors, Double Compressors one standby and one main. Auto switch over facility of compressors should be their. Conforming to latest international standards and guidelines.
19. Vapor proof lamp inside.
20. Temperature range -2 to 4 deg C.
21. Voltage 230+/-10% with stabilizer.

Schedule No. 64

Technical specifications for PC based spirometer for the measurement of lung volumes & Capacities and diffusion.

A computerized Spirometer based lung volume and diffusion measurement apparatus is required. These parameters should be actually measured and should not be derived ones.

1. The spirometer should satisfy international preferably American Thoraic Society criteria for accuracy and should be capable of single breath diffusion study.
2. The spirometer in addition should be able to perform estimation of lung diffusion by another method, which does not require breath holding
3. The spirometer should include Helium and Carbon Monoxide Analyzer

4. Routine spirometry, bronchoprovocation studies and measurement of inspiratory and expiratory muscle power should also be possible.
5. Indian predictive values should be available for all measurement and both methods of estimation of lung diffusion. The proper medical reference from where these values have been incorporated should be clearly mentioned.
6. An estimate of the cost of consumables for each single breath diffusion should be provided. System should be capable of rapid cleaning and sterilization.
7. System should be backed by a latest Intel® Core™ i5-760 processor computer with Windows 7 Professional 64 bit or higher computing capable of storing 1000 tests, rapid retrieval and analysis of data. It should also cater to the usual correspondence needs of the laboratory. A 21.5'' inches color monitor, a color laser printer and a UPS with 20 minutes back up are also required. System should be backed by software capable of rapid analysis of the acquired data and presenting it in various formats while reporting.
8. UPS with 20 minutes back up for the whole system
9. System should conform to international safety standards.
10. The equipment should be under warranty for a period of three years after successful commissioning & installation. An undertaking to maintain and service this apparatus with gas supply and spare parts over the next 5 years after mandatory warranty should be clearly stated.
11. Training of identified hospital staff in operating the system should be provided.
12. It should be clearly mentioned whether or not the vendor has ever supplied any equipment to this hospital or has provided similar equipment to any other Central Government Hospital.

Such or better system will be selected.

Schedule No. 65

STUDENTS PHYSIOGRAPH WITH 3 CHANNEL WITH STANDARD ACCESSORIES

Technical Specifications

- Should be able to record Bio-Electrical Potential e.g. EEG, ECG, ENG, EMG, Pulse, Respiration, Blood Pressure etc.
- It should be made of light metal for compactness and lightness.
- Student physiograph should be three channel console with 9 speed (.5,1,2,5,10,20,25,30 & 50 mm/sec) chart drive, time & event chart, transducers and stimulator
- Couplers: Strain Gauge, isotonic, Pulse Respiration, temperature, EKG and Bio- Potential
- Transducers: Pressure, volume, muscle activity/ force respiration belt, Isotonic fine movement, pulse, respiration & temperature
- Data Acquisition System to convert data from physiograph to a computer with HRY and independent ECG Recording system with software and computer.

System Configuration Accessories, spares and consumables

- Earth Lead
- EKG electrode
- EEG & EMG paste
- III Pin junction box, action potential electrode
- V-pin junction box
- Chart paper Z- fold
- Fuse

Power Supply

- Power input to be 220-240VAC, 50Hz

Documentation

- Manufacturer should have ISO certification for quality standards

Should have FDA/CE/BIS certification

Schedule No. 66

Stress Test System with TMT

1 Description of Function

1.1	Exercise stress testing systems offer a wide array of unique diagnostic software options to evaluate myocardial function. Automatic arrhythmia detection, ST-segment analysis, and T-wave alternans are a few examples. In conjunction with a treadmill or ergometer, these systems provide a controlled environment for the observation of the effects of increases in myocardial oxygen demand: exercise-induced systolic hypotension, exercise-induced angina, and/or the appearance of a heart murmur during exercise.

2 Operational Requirements

2.1	System complete with PC, Software, TMT and necessary cables is required.

3 Technical Specifications

3.1	1. System should acquire and analyze 12 leads. 2. System should be based on Windows platform with 17" color monitor having minimum resolution 1280 x 1024. 80 GB HDD, CD-RW, Mouse, UPS for analyzer. 3. Deleted 4. Should provide standard Full Interpretation of Supine ECG with reasoning. 5. Display of real time 12 lead diagnostic quality ECG waveform, average complexes beat of all 12 leads with superimposed color comparison along with digital value of ST level and slope. Display the graph on the recording paper. 6. Automatic detection, display, Storage and review of arrhythmia, Heart Rate, Double Product and METS. It should have online HR METs and ST running trends available on the screen during exercise. 7. System should have ability to manual edit of J & Isoelectric point during exercise. Filters for line frequency and special filters to reduce noise and baseline artifacts without compromising the ECG frequency response. 8. System should have full disclosure play back, review and storage of patient ECG raw data for unlimited numbers depending upon size of the hard disk. The unit should have the ability to readjust "J-ST" interval measurement + 1 m sec points and generate a new report from stored raw ECG data. 9. System should provide multiple and customizable printing formats as per user's choice on A-4 size high resolution thermal printer for online real time printings. Compatible laser printer for printing reports on plain paper also to be supplied. 10. System must have ECG trigger output to interface with external automatic devices. 11. Heavy Duty Treadmill : Noise free TREADMILL with speed ranging from 0.5 to 20 kmph and grade of 0 – 22% with suitable servo stabilizer.

4	**System Configuration Accessories, spares and consumables**		
4.1	System as specified		
4.2	All consumables required for installation and standardization of system to be given free of cost.		
5	**Environmental factors**		
	None		
6	**Power Supply**		
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Suitable Servo controlled Stabilizer/CVT		
7	**Standards, Safety and Training**		
7.1	Should be FDA/ CE or BIS approved product		
8	**Documentation**		
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	Certificate of calibration and inspection.		
8.3	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		

Schedule No. 67

Technical specifications for EMG/EP system 4 channels: for recording of the evoked responses & EMG with accessories

Essential Requirements:

1) Minimum four channel
2) With facility for up gradation
3) Standard programs for recording motor nerve conduction velocity, sensory nerve conduction velocity, repetitive nerve stimulation, F response, H reflex and blink reflex.
4) Standard program for routine electromyogram (EMG) recording, motor unit potential (MUP) analysis, interference pattern analysis, single fiber EMG, jitter analysis, automatic computation with display
5) Standard program for recording sympathetic skin response
6) Standard program for recording brain stem auditory evoked response, middle latency response and slow vertex response
7) Standard program for recording pattern reversal visual evoked potential (VEP) and LED VEP.
8) Standard program for recording P300 with audiovisual paradigms
9) Standard program for recording somato-sensory evoked potentials (upper limb & lower limb) and short latency evoked potentials
10) Facilities for checking electrode-skin impedance
11) PC requirements: Intel® Core™ i5-760 processor (2.80GHz, 1333MHz FSB, 8MB Cache) Genuine Windows® 7 Professional , 64bit (English) or higher ; 21.5 " Full HD Widescreen Flat Panel Monitor ; 6GB DDR3 SDRAM ,500GB SATA Hard Drive ; Single Drive: Blu-ray Disc Combo (DVD+/-RW + BD-ROM) . Facility for internet connectivity, with facility of up gradation
12) Color laser printer & UPS with 20 minutes back up for whole system along with computer
13) Patient Data management software & archiving facility
14) MS Word based report generation facility
15) *Amplifiers:*
    i. Input impedance: 1000 mega ohms or more
    ii. Sensitivity: 2 microvolt – 10 millivolts per division
    iii. Time base: 0.1 millisecond – 0.5 seconds per division in variable steps
    iv. Filters: Standard low cut filter(0.2 to 2KHz), high cut filters for all recordings

Standard accessories to be provided [items-quantity in numbers]

1. Surface stimulating (reusable) – 4 [four]
2. Surface Recording electrodes (reusable) – 12 [twelve]
3. Concentric needle electrodes (adult size, disposable, with adequate length of the connecting cable) – 50 [fifty]
4. Concentric needle electrodes (pediatric size, disposable, with adequate length of the connecting cable) – 50 [fifty]
5. Needle holder for disposable needles – 3 [three]
6. Single fiber EMG electrode with needle holder – 1 [one]
7. Ground electrode – 4 [four]
8. Headphones and child ear tips with cables – 2 [two]

9. VEP monitor and LED goggles – 1 [one]
10. Headphones for auditory evoked potentials- 1[one]
11. Flash stimulator – 1 [one]
12. Electrode gel – 10 [ten]
13. EMG conductive paste (200 gms or more) – 10 [ten]
14. Recording paper – 3 [three]
15. Power cable – 2 [two]
16. Ground lead – 2 [two]
17. Power requirements: 220 V AC, 50 Hz

Warranty:

1.The equipment should be under warranty for a period of three years after successful commissioning.

2. All essential spare parts and service manuals should be available with the local service center and all steps should be taken for immediate servicing to prevent down time.

Annual Maintenance Contract:

1. The Annual Maintenance Contract rates for a period of 5 years after the warranty period should be quoted separately and this would be taken into consideration in comparing the price bids.

2. Annual Maintenance Contract should include preventive maintenance and breakdown calls. A copy of service manual should be available with local service center.

Installations, Commissioning, Testing, Maintenance and After Sales Service:

1. . The equipment and all accessories should be installed, tested and commissioned at the Department where the instrument is installed, free of cost.
2. One engineer should be posted for a week for imparting training at site of installation.
3. All spare parts and consumables should be available with the supplier or principals for a period of 10 years.

Schedule No. 68

AUTOCLAVE (VERTICAL)

- **Description of Function**: Steam Sterilizers or Autoclaves are required to sterilize objects under high temperature and pressured steam.
- **Operational Requirements**: Suitable for hospital dressings, linen, surgical instruments, glassware, culture media and laboratory ware etc.
- **Technical Specifications:-**
  - Single door high pressure steam sterilizer with double/triple walled, steam jacket and separate boiler
  - Material of construction:
    a. Sterilizer chamber SS 316
    b. Door SS 316
    c. Jacket MS
    d. Loading carriage SS 316
    e. Transfer trolley: MS, painted
    f. Door Gasket: Silicon or better
    g. Insulation: fiber glass resin bonded wool or better
    h. Insulation cover: SS sheets

- Chamber capacity 100-200 ltrs
- Operating temperature 121^{0}C - 138^{0}C pressure 1.1 to 2.2 kg/ cm^2 of steam pressure
- Sterilizer should be provided with steam generator
- Spring loaded safety valves and automatic vacuum breaker for jacket
- Removable plug screen for chamber drain
- SS baffle for even steam distribution in the chamber
- Safety valve protection against poor pressure.
- Safety lock for door :pressure lock safety device
- Low water off

- System Configuration Accessories, spares and consumables:
  - System as specified-
  - Should provide available spares and consumables for at least 10 years
  - Should provide a sufficient quality of consumable along with the equipment

- Environmental factors: Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.

- Power Supply: Power input to be 220-240VAC, 50Hz,/440 V 3 Phase as appropriate and fitted with plug compatible with local sockets

- Standards and Safety:
  - Comprehensive onsite training for lab staff and support services till familiar with the system.
  - Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450 (BIS)
  - Should be ISI /CE or equivalent standard approved product.

- Documentation:
  - User/Technical/Maintenance manuals to be supplied
  - Certificate of calibration and inspection from factory.
  - List of important spare parts and accessories with their part number and costing.
  - Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out
  - Should submit a report of quality checks using biological indicator.

Schedule No. 69
Automated Slide Stainers

1. Description of Function

1.1 Automatic Slide Stainer is used for staining histological and cytological slides.

2. Operational Requirements

2.1 Should be programmable for routine H & E & other special stains with facility for imuno-histochemical stains & memory of various staining procedures

3. Technical Specifications

3.1 Should hold about 80 slides per basket

3.2 Basket chemical capacity 750-1000ml

3.3 At least 2(two) water stations with 24 work stations,(Programmable) with timing in minutes & second & facility for single & double load.

3.4 Agitational facility

3.5 Can be connected with any make automatic cover-slipper

4 System Configuration Accessories, spares and consumables

4.1 System as specified-

4.2 Bio chemical baskets - 6 Nos.

4.3 Slides Hangers - 4 Nos

4.4 All consumables required for installation and standardization of system to be given free of cost.

5 Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%

5.3 A fume hood completely covering the slide plates to prevent hazardous fumes from entering the lab area and an activated charcoal filter to minimize solvent vapors should be provided.

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.

7 Standards and Safety

7.1 Should be FDA or CE approved marked product

Schedule No. 70

Automatic Microtome

1 Description of Function

1.1 Automatic microtomes are precision instruments designed to cut uniformly thin sections of a variety of materials for detailed microscopic examination. The microtome operation is based upon the rotary action of a hand wheel activating the advancement of a block towards a rigidly held knife.

2 Operational Requirements

2.1 Automatic microtome for histopathological section cutting specimen up to 32 x 27 mm

3 Technical Specifications

3.1 Specimen advance 1 to 30 µm in 1 µm steps

3.2 Integrated, smooth hand wheel that locks in any position

3.3 Fine orientation of specimen with specimen tilt

3.4 Quick charge for all specimen clamps

3.5 Option to use both standard knife holder and disposable blade holder

3.6 Section Waste tray

3.7 Knife holder takes knives from 110 to 185 mm long by 28 to 35 mm wide and has guards for protection both inside and outside clamp

3.8 Standard accessories to include the following: Object orientation set, Universal Cassette Clamp, universal knief holding base, Std knief holdr,sharp blade holder, Waste tray, Dust cover, 50 each low and high profile disposable Microtome blades.

3.9 Automatic and manual operation.

4 System Configuration Accessories, spares and consumables

4.1 System as specified-

4.2 All consumables required for installation and standardization of system to be given free of cost.

5 Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

5.2 Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%.

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug

6.2 Suitable UPS with 30 Min backup

7 Standards and Safety

7.1 Should be FDA or CE approved product

7.2 Manufacturer should be ISO certified for quality standards.

Schedule No. 71
Automatic Tissue Processor

1 Description of Function

1.1 Tissues from the body taken for diagnosis of disease processes are processed by the tissue processor in the histology laboratory to produce microscopic slides that are viewed under the microscope by pathologists.

2 Operational Requirements

2.1 Latest Model Fully automatic system with all accessories is required.

2.2 Computer controlled flow through tissue processor to automatically perform fixation, dehydration, cleaning, and paraffin impregnation of tissue. Specimens should remain stationary during processing in a fully enclosed retort while processing reagents and molten paraffin are moved to and from the chamber in a programmed sequence.

3 Technical Specifications

3.1 Capacity (a)200-250 cassettes in organized basket(b) 275-300 random basket

3.2 Reagent stations – Number of vessels: 10 (1.8- 2 litres ea.)

3.3 Paraffin stations– Number: 2 (1.8- 2 litres ea)

– Temperature setting range: 35 - 70°C

– Overtemperature release: 75°C >(± 5°C)

Can be configured for three.

3.4 Following progams should be available:
– Number of programs:10-12 (selectable)
– Programmable time per station:From 1 sec. to 100 hours
– Spiral agitation,Vertical agitation,Centrifuging ,Centrifuging time should be selectable.
– Program can be delayed start or finished upto 5-7 days in advance.
-3 Flush options
3.5 Fume extraction system, with active charcoal filter.
3.6 Quote pricing to upgardation to another basket with similar casstes capacity.
3.7 Activated charcoal/carbon filter.
3.8 Should be an open system capable of using standar cassettes from open markets.
3.9 Screen display of time,date,cycles,step by step record of processing.
3.10 Can be configured for 3 wax bath and 9 reagent station or 2 wax bath and 10 reagent stations each with a capacity of 1.8-2 litres.
3.11 Automatic in process reagent and wax rotation facility.
3.12 Movement of reagents with vacuum and positive pressure.
3.13 Pre heating facility.
3.14 Vacuum selection at any step.
3.15 Remote alarm to signal possible problems and reagent change etc.
3.16 Reagent change based on specific gravity of the first alcohol.
3.17 Clear door/lid for viewing specimens during processing.

4 System Configuration Accessories, spares and consumables

4.1 System as specified-
4.2 SS basket Rotor - 01
4.3 SS tissue basket- 01
4.4 Aluminium reagent vessels of 1.8-2 litre capacity each-10
4.5 Beaker covers- 11
4.6 SS wax baths, tissue capsules with perforations- 02
4.7 Cassettes-10,000
4.8 Plexiglass fume containment shield with Fume outlet Tubes, Activated carbon filter Receptacle and Vaccum function.
4.9 Stainless steel counterweight to keep the samples submerged.-01

5 Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
5.2 The unit shall be capable of operating continuously in ambient temperature of 10 - 40deg C and relative humidity of 15-90%

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2 Resettable overcurrent breaker shall be fitted for protection
6.4 Suitable UPS with maintenance free batteries for minimum one-hour back-up should be supplied with the system.

7 Standards and Safety

7.1 Should be FDA or CE approved product

Schedule No. 72

Dry Heat Water Bath (Heat Block)

1	**Description of Function**	
1.1	Dry bath system enables sample temperature management. It is far more convenient than water bath systems, requires less space and needs little maintenance	
2	Operational Requirements	
2.1	Microprocessor controlled system	
3	**Technical Specifications**	
3.1	Design to uniformly heat the contents of 24 tubes for ambient to 110 degC of variable volumes	
3.2	Block to hold approximately 24 tubes (1.5, 0.5 & 5ml - 8nos each) – 1No. 32 tube (1.5,0.5,5 & 15ml-8nos each)-1No. & 24 Tubes block each for 1.5,0.5 & 5ml)	
3.3	Digital temperature display with temperature accuracy of ± 0.5oC or better.	
3.4	Should have 3 Independent timers with buzzer programmable up to 99 hours 59 mins.	
4	**System Configuration Accessories, spares and consumables**	
4.1	As specified	
5	**Environmental factors**	
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%	
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%	
6	**Power Supply**	
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug	
7	**Standards, Safety and Training**	
7.1	Should be FDA or CE approved product	
7.2	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.	

Schedule No. 73.

Equipment Specifications for Paraffin Tissue Embedding Centre

1 Description of Function

1.1	The Paraffin Tissue Embedding Center (TEC) is a modular unit for moderate to heavy workloads in the preparation of wax tissue blocks.

2 Operational Requirements

2.1	System should be modular and complete with microprocessor control of the large 3-5-litre paraffin reservoir, base molds warming oven, tissue holding tank, work stage and cold plate; user-friendly touch membrane pad with LED displays; lighted work stage; built-in forceps warmer; foot switch and/or push button-activated paraffin dispenser; and programmable, automatic timer controls.

3 Technical Specifications

3.1	Paraffin Reservoir capacity at least 3 liters
3.2	Temperature ranges: Paraffin Reservoir:50 deg C - 70 deg C (± 2deg C) Work Surface:50 deg C - 70 deg C (± 5 deg C) Tissue Holding Tank:50 deg C - 70deg C (± 2 deg C) Cold Plate: - 5 deg C to -15 deg C to ambient
3.3	Refrigerant :Cold Plate, Cold Spot (peltier controlled)
3.4	There should be a Membrane Keypad with LCD/LED to set and display operating parameters, current status, running time and alarm conditions for time and temperature.
3.5	Resolution of temperature display: +/- 1 deg C
3.6	Unit should have self test on power up and should display error codes in case of malfunction for easy maintenance and troubleshooting. Error codes should be indicative of the System failure or a single module failure.
3.7	Dimensions :(All dimensions variations +/- 10 % rounded off to integral value.) Height of Work Surface: 6 cm or more Cold Plate: (at least to hold 80 to 100 cassettes)
3.8	Receptacle for 6 forceps
3.9	Pre heated forceps of two types (for small and medium size tissue)
3.10	Drain Wax should remain in melted form

4 System Configuration Accessories, spares and consumables

4.1	Prices should be quoted for each separately: Standard size Cassettes – 1000 Nos.
4.2	Large field Magnifying lens with cold light source
4.3	Stainless Steel Moulds of different sizes (Depth 9 to 12 mm) – 80 Nos.
4.4	Paraffin Scrapper – 3 Nos.
4.5	Halogen Bulb – 12 Nos.
4.6	Fuse – 12 Nos.

5 Environmental factors

5.1	The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
5.2	Thu unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%.

6 Power Supply

6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2	Reset table over current breaker shall be fitted for protection
6.3	Suitable voltage corrector/stabilizer

7 Standards and Safety

7.1	Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.
7.2	Should be compliant with IEC 61010-1:covering safety requirements for electrical equipment for measurement control and laboratory use.
7.3	Should be FDA or CE or ISI approved product
7.4	Comprehensive training for lab staff and support services till familiarity with the system.

8 Documentation

8.1	User/Technical/Maintenance manuals to be supplied
8.2	Certificate of calibration and inspection from factory.
8.3	List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
8.4	List of important spare parts and accessories with their part number and costing.
8.5	Log book with instruction for daily , weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out
8.6	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue.

Schedule No. 74

Bench Top Flow Cytometer Analyzer

1. Flow Cytometer analyzer should be compact automated & bench top.

2. Excitation: Solid state/diode blue laser (488 nm, 20 mW or better) and red laser (635/640 nm 25mW or better).

3. All the Lasers & their excitation as well as collection optics should be pre-aligned.

4. System acquisition should be digital and have capability of 6 parameter measurements with four fluorescence detector and two light scatter detectors (forward & side scatter).

5. System should equip with an ease for user to change the filter required as per application. All optional filters & filter related accessories should be quoted in optional. It will not be considered as comparison.

6. System should have pre-optimized detectors & comes with constant voltages, so not required to adjust voltages which gives standardized fluorescence performance

7. The system should come with various fluidic Flow Rates and Core Sizes for collecting sample.

8. The system should be able to acquire at least 10,000 events per sec.

9. System should have capability to collect data over a 7-decade dynamic range with 24 bit digital dynamic range.

10. The system should be capable to aspirate sample from tube of various size such as 0.5, sample tubes, including microcentrifuge tubes and tubes made of polypropylene or polystyrene.

11. System should be able to perform absolute counting without the need of adding beads to the samples.

12. System should have Fluorescence Sensitivity at least MESF FITC < 150; PE < 100

13. Flow cytometer should have Flow Cell with minimum size 200 µm ID quartz & Minimum Detectable Particle Size 0.5 µm.

14. System should be capable of using 0.2-µm filtered DI water as a sheath fluid to form a Hydrodynamic focusing & laminar flow with in Flow Cell.

Software

15. System should come with suitable software for acquisition, data analysis for all application. Should offer both online & offline compensation during data analysis. System should be compatible for bead array application.

16. Data management system : PC workstation with at least Pentium Duo core @ 3.16 or more GHz 320 GB hard drive or more, DVD / CD ROM R/W Combo Drive, 19 " LCD monitor.

17. The company should have at least 10 installation of flow cytometer in India & at least 5 installation of the quoted model. Complete details of services and application support should be given along with onsite installation and training. Also, company should have facility for technical support, trouble shooting & training on the same system within the country on its cost.

18. The firm must supply 2 KVA online UPS with atleast 30 mins backup with the system.

Optional item:-

19. System should have an upgradable option module for auto-sampling from 96 & 48 well plates and 12 x 75-mm tubes can also be accommodated using the supplied at least 20 tubes carousels rack for analyzing more samples (must be quoted optionally)

Schedule No. 75
Automated Knife Sharpener

Specifications :

Automatic knife sharpeners with plates, knife holder which can accommodate all types of knife with facility to sharpen in both the direction, transparent hinged cover, adjustable timer 0-60 minutes, cord and plug with micro abrasive.

Additional Accessories required:

Honing plates – 5 Nos
Universal knife holder – 1 no.
Abrasive paste 1 & 6 Micron – 5 nos. each

Requirements at installation: Installation chart with each machine

.

Schedule No. 76

Table top Micro-centrifuge

Technical Specification For Table Top Micro centrifuge

- Compact centrifuge for speed up to 14000 rpm & RCF should be up to 20000 xg
- Dials and digital display for easy setting
- Rotor for 24 X 1.5,2ml tubes with ClickSeal bio-containment lid and dual row 18 x 2.0/0.5 ml rotor with screw-on lid.
- Should have option for emergency Lid Opening.
- Brushless motor
- Autoclavable rotors
- Temp. range -9 deg C to 40 deg C per 1 deg increment
- Standby cooling.
- Acceleration time to max. speed <13 s
- Braking time to max. speed <12 s
- Timer 30 s to 99 min, with continuous mode

The system should be CE/FDA approved

Schedule No. 77

Semen Analyzer

- The system should be able to analyze Semen.
- The system should be able to analyze the semen in natural and non diluted condition.
- It should have WHO paramaters for analysis like:
    - Total Sperm Count
    - % Motility
    - % Normal Morphology
- It should give other parameters like
    - TFSC - TOTAL FUNCTIONAL SPERM COUNT.
    - SMI - SPERM MOTALITY INDEX.
    - MSC - MOTILE SPERM CONCENTRATION
- The Instrument should be able to display all these parameters on screen.
- The Instrument should be able to analyze the semen in less than 1 minute.
- The instrument should have in built printer for the ease of result print out.

Schedule No. 78

Tissue Floatation Bath

1 Description of Function

1.1 Required to thoroughly straighten sectioned paraffin embedded tissue specimens without creating wrinkles, folds or distortions.

2 Operational Requirements

2.1 Chamber completely encircled by sheathed heater for uniform, broad surface heating with insulated body to prevent heat loss and temperature fluctuation is required.

3 Technical Specifications

3.1 Rectangular / Circular with a capacity with in the range of 3-5 liters
3.2 Temperature range with in 30 – 60 ^{0} C
3.3 Temperature controller with increments of 1° C or less. LED Display of temperature.
3. 4 Stainless steel / aluminum body.
Inner surface should permit easy identification of tissue sections
Outer surface should be powder coated
3.5 Safety system to prevent over heating should be present
3.6 Indicators for POWER ON and HEATER ON.
3.7 Indicate if timers / alarms are present

4 System Configuration Accessories, spares and consumables

4.1 System as specified-

5. Environmental factors

5.1 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%
5.2 The unit shall be capable of operating in ambient temperature of 20-30 deg C and relative humidity of 80%.

6 Power Supply

6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug
6.2 Reset table over current breaker shall be fitted for protection

7 Standards and Safety

7.1 Should be FDA or CE approved product

Schedule No. 79

Master Cycler Gradient

Specifications:-

Universal Block for 96 x 0.2ml PCR Tube, 71 x 0.5 ml PCR Tube, One 8x12 PCR plate
Gradient PCR, capable of testing 12 different temperatures simultaneously across a gradient range of 1 - 20° C
Heating and cooling via peltier technology. Triple Circuit Technology to ensures precise control of temperature
Temperature control range: from 4 °C to 99°C
Temperature Control Mode: Fast, Standard and Safe
Lid Temperature range: 37 - 110 °C
Block Temperature Accuracy: ± 0.2°C
Block Homogeneity: 20° C to 72° C: ≤ ±0.3° C, 95° C: ≤ ± 0.4° C
Temperature control speed: approx. 3 °C/s (heating)
Temperature control speed: approx. 2 °C/s (cooling)
Lid descent and closing pressure - Flexlid technology with Thermal sample Protection
Graphic programming display
Administrator and user login with or without PIN for enhanced security
Preprogrammed template for easy selection from 16 temperature protocols viz. 2 step PCR, 3 Step PCR, Gradient PCR, Long Range PCR, Low volume PCR, RT, RT-PCR, Incubation, Cycle sequencing, Touch down PCR, Hot Start PCR, Hot Start PCR manual, Large volume PCR, Nested cycles, reduced ramping, simulate Mastercycler.
Time or Temperature increment with cycles in PCR program
Adjustable ramp rate from 0.1° C to 3.0° C to meet critical amplification conditions
Customized programming allows a maximum of 20 steps and 99 cycles
Auto Restart facility with user defined time interval when power fails and resumes
Instrument status indicates the step, cycle and remaining runtime during the run
Runtime display shows remaining time in larger font for better view from distance
System memory of more than 100 User folders and more than 700 programs
Two USB ports: for Protocol transfer, Self-test, USB, printer / mouse
Log book function for error messages and new calibration
E-mail Notification
Power save Standby function
Cooling vents at bottom and rear allow placing other instruments in limited bench space
Option to connect up to TWO Mastercycler for ultimate throughput..
Optional Self-test dongle to check functionality of all 6 peltier elements
Interface: Ethernet, CAN in, CAN out
Power supply: 230 V, 50-60 Hz
Calibration certificate from the factory has to submit.
CE/USFDA approved

Schedule No. 80

Foetal Monitor with central Station

Equipment Specifications for Antepartum and Intrapartum foetal monitor (Cardiotocomachine)

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Antepartum and Intrapartum foetal monitor (Cardiotocomachine) is used to monitor Foetus during antepartum period (before labour) or intrapartum period (birth process)"		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	The complete unit with printer and all accessories should be offered.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	The monitor should be provided with 1) Battery and main operation facility 2) Should have inbuiltLCD screen /LCD TV monitor with facilities to display on screen fetal heart tracings and toco tracings. 3) Should be compact, light weight and should have inbuilt carrying handle and waterproof transducers. 4) The unit should have Fetal Heart Rate range 50 to 240 bpm External Toco range 0 to 127 relatives units Should have NST timer for antepartum applications 5) Highly sensitive ultra sound transducer which should be 1.5 MHZ for less signal attenuation and good signal acquisition. Ultrasound transducer should be a waterproof unit. Designed with Snap Clasp closure for easy application and cleaning. Preferably there should be facility to switch between transducers when more than one transducer is used.		

	6) Ability to give an accurate continuous trace and should be able to detect sudden beat changes upto 25 bpm 7) Audible alert indication of fetal bradycardia and tachycardia 8) External tocotransducer which should be a sealed waterproof unit. Guard ring designed to reduce maternal respiration artifact. 9) Patients event marker. 10) Capability of automatic fetal movement detector. 11) Digital numeric and text display along with audio signal of fetal movement Should have inbuilt keyboard entry screen for patient data entry, name etc. Minimum 5 hour memory of traces with fast printing. 12)Should provide following accessories – Transducer belts, Belt buckles,Main cables, interconnecting cables, ultrasound gel bottles. 13) Inbuilt high resolution thermal/Laser printer with easily available cost effective paper. 14) Should be provided with trolley with wheels with locking facility for mounting the unit on it with accessories for storage of transducers paper etc or the unit must have the facility for wall mounting and a protective cover with cabinet. 15) Following rate to be quoted Separately. (I) facility for intra uterine pressure monitor. (II) facility to record fetal heart rate pattern through fetal ECG. (III) facility to monitor twins. Should have twin offset feature so that both fetal heart traces are clearly visible. (IV) facility of central monitor system.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
	None		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of operating continuously in ambient temperature of 20-30 deg C and relative humidity of 15-90%		

5.3	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Should work on 220-240V AC as well as rechargeable batteries. Mains adaptor to be supplied		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA/CE or BIS approved product		
7.2	Comprehensive warranty for 2 years and 5 years CMC after warranty including UPS		
7.3	Comprehensive training for lab staff and support services till familiarity with the system.		
7.4	Manufacturer should have ISO certification for quality standards.		
7.5	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.3	Certificate of calibration and inspection.		
8.4	List of important spare parts and accessories with their part number		

	and costing.		
8.5	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.6	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		

Schedule No. 81

Cardiotocography

Equipment Specifications for Antepartum and Intrapartum foetal monitor (Cardiotocomachine)

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	Antepartum and Intrapartum foetal monitor (Cardiotocomachine) is used to monitor Foetus during antepartum period (before labour) or intrapartum period (birth process)"		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	The complete unit with printer and all accessories should be offered.		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any

3.1	The monitor should be provided with 1) Battery and main operation facility 2) Should have inbuiltLCD screen /LCD TV monitor with facilities to display on screen fetal heart tracings and toco tracings. 3) Should be compact, light weight and should have inbuilt carrying handle and waterproof transducers. 4) The unit should have Fetal Heart Rate range 50 to 240 bpm External Toco range 0 to 127 relatives units Should have NST timer for antepartum applications 5) Highly sensitive ultra sound transducer which should be 1.5 MHZ for less signal attenuation and good signal acquisition. Ultrasound transducer should be a waterproof unit. Designed with Snap Clasp closure for easy application and cleaning. Preferably there should be facility to switch between transducers when more than one transducer is used. 6) Ability to give an accurate continuous trace and should be able to detect sudden beat changes upto 25 bpm 7) Audible alert indication of fetal bradycardia and tachycardia 8) External tocotransducer which should be a sealed waterproof unit. Guard ring designed to reduce maternal respiration artifact. 9) Patients event marker. 10) Capability of automatic fetal movement detector. 11) Digital numeric and text display along with audio signal of fetal movement Should have inbuilt keyboard entry screen for patient data entry, name etc. Minimum 5 hour memory of traces with fast printing. 12)Should provide following accessories – Transducer belts, Belt buckles,Main cables, interconnecting cables, ultrasound gel bottles. 13) Inbuilt high resolution thermal/Laser printer with easily available cost effective paper. 14) Should be provided with trolley with wheels with locking facility for mounting the unit on it with accessories for storage of transducers paper etc or the unit must have the facility for wall mounting and a protective cover with cabinet. 15) Following rate to be quoted Separately. (I) facility for intra uterine pressure monitor. (II) facility to record fetal heart rate pattern through fetal ECG. (III) facility to monitor twins. Should have twin offset feature so that both fetal heart traces are clearly visible. (IV) facility of central monitor system.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted	Bidders Deviation if any

		by bidder	
	None		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.or should comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of operating continuously in ambient temperature of 20-30 deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	Should work on 220-240V AC as well as rechargeable batteries. Mains adaptor to be supplied		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA/CE or BIS approved product		
7.2	Comprehensive warranty for 2 years and 5 years CMC after warranty including UPS		
7.3	Comprehensive training for lab staff and support services till familiarity with the system.		
7.4	Manufacturer should have ISO certification for quality standards.		
7.5	Should have local service facility .The service provider should have the necessary equipments recommended by the manufacturer to carry		

	out preventive maintenance test as per guidelines provided in the service/maintenance manual.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.3	Certificate of calibration and inspection.		
8.4	List of important spare parts and accessories with their part number and costing.		
8.5	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet.Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.		
8.6	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job descriptin of the hospital technician and company service engineer should be clearly spelt out.		

Schedule No. 82

Hyterescope, Resectoscope

Equipment Specifications for Operative Hysteroscope Set with Resectoscope(Complete System)

UNSPSC Code:
ECRI Code:

1 Description of Function

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
1.1	The resectoscope is a hysteroscope with a built in wire loop (or other shape device) that uses high-frequency electrical current to cut or coagulate tissue. **It allows** surgery inside **the uterus** an organ without having to make an incision. Hysteroscopy uses a hysteroscope, which is a thin telescope that is inserted through the cervix into the uterus for examination		

2 Operational Requirements

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
2.1	Complete unit with Resectoscope and Hysteroscope is required		

3 Technical Specifications

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
3.1	A)Hysteroscope Telescope with color code: 4 mm diameter with a working length of at least 30 cms; 30 degree fore oblique lens, auto clavable or sterilized by liquid disinfectant; Fiberoptic light transmission incorporated, B)Diagnostic Sheath with obturator 5mm diameter for the above 4 mm Hysteroscope telescopes (item A), with leur lock adapter . C)Continuous irrigation Operative Hysteroscope Sheath with		

obturator, outer and inner sheath for the above 4 mm hysteroscope telescope (item A) with channel for semi-rigid 5/8 fr size instruments. Should have facility for self closing sealing system for precise irrigation.

D)Accessories
Hysteroscopy flexible / semi rigid instruments which should be adaptable to above sheath (item C), 5/8 fr. Diameter-
1) Foreign body grasping forceps .
2) Scissors
3) Biopsy and Grasping forceps .
4) Needle electrode and ball electode-Unipolar – high frequency cords of any
make should be compatible with the above equipment
5) Bipolar vaporizing electrode – high frequency cords of any make should be
compatible with the above equipment
6) Myoma fixation screw
7) Palpation probe
8) Polypectomy loop
Any of the above accessories may be quoted separately as optional.

E) Resectoscope including connecting tube for inflow and outflow for the above 4 mm hysteroscope telescope (item A)complete with continuous irrigation double sheath system, i.e outer flow and rotating inner tube with ceramic insulation distal tip,with obturator to be quoted along with working element and complete set of electrodes and 2 set of HF cables .
Size of resectoscope as per requirement.
All electrodes and Collin's knife to be bipolar/unipolar (as per requirement) to be quoted with appropriate cautery.

F) **Hysteromet** –
Suction and irrigation system for use in hysteroscopy
Irrigation function is performed by **electric** pump
Maximum parameters for hysteroscopy are automatically set
Precise presetting of volume and pressure of suction and irrigation parameters via touch keys.
Adjacent display scales for set values and actual value to ensure safe monitoring.
To be used with pressure regulated from 0 to 200mm of Hg, and flow rate regulated from 0- 500ml/min. Suction regulated to 0 to -50kPa.
Power supply 100-240 VAC, 50/60 Hz, Mains cord.
Connecting cable 100 cm, one pedal foot switch.
hysteroscopic tubing set.
Suction and irrigation tube, antireflex surface with two way stop cock for single hand control.
Suction bottle 1.5 l and 5 l, sterizable with bottle stand and bottle stand holder.

	Silicon Tubing **Set** for suction , sterizable.		
3.2	Endoscopic camera with T.V. medical grade monitor and printer A.1)Endoscopic Camera (Digital) 1. 3 chip CCD camera for capture and processing three primary colors 2. Digital image processing and digital contrast enhancement. Multiple settings which allow the user to select the desired level of image enhancement. Horizontal image resolution of > 750lines 3. Light weight camera head with programmable function keys 4. Camera head should incorporate zoom lensing system to produce optimum image sizing for all scopes to alleviate the need to refocus on magnification. 5. PAL system/ multimedia as existing in this country 6. Automatic white balancing 7. Minimum sensitivity should be 3 Lux 8. Freely programmable camera head buttons 9. Cable should have buckling protection 10. Facilities for fine focus for smooth function. Microprocessor controlled. 11. Built in antifogging device. 12. Camera head should be compatible with telescope of any make and light of any make. Coupling device for use with all rigid or flexible endoscopes with standard eyepiece 13. Integrated universal power supply 14. Compatible with medical grade monitor with multimedia projection available in this country. 15. Should have specific built in facility for camera functionality automatically optimizing all settings. 16. Signal to noise ratio 60 db 17. Camera should be ready to use as soon as it is connected to camera control unit. B.1) Camera Control Unit 1. Should have microprocessor control 2. Should have multiple video input and out puts – BNC,RGB,Y/C etc 3. Should have all necessary connecting cables between camera head and video monitor C.1)MONITOR –1- Multinorm/PAL system color monitor for different color systems existing in the country. 2-Compatible with endovision camera of any make 3-Screen size diagonal 23” , Flat screen LCD monitor 4-Max horizontal screen resolution in lines >800 lines. 5-Monitor menu displays all controls, capabilities and operations via curser keys, user defined captions, easy to use and highly dependable. 6-Should be composite, have multiple video input and out puts – BNC,RGB,Y/C, SDI, and preferably DVI etc 7-Power supply of 200-240 VAC. 50Hz 8-Should have facilities for recording the data on computer /digital		

	Video recorders/CD 9-On screen menu for monitor setting , Compact and light weight,Drip water protected dust proof , all connecting cables to be supplied 10 Brightness 400cd/m2, contrast ratio 700:1 11. Antireflection coated front glass. 12 Should have consistent illumination level. 13 Should preferably have facility for upgradation and should be compatible with lower models. F) VIDEO COLOUR PRINTER :- 1-For endovision camera and multi colour systems existing in country 2-Large colour prints of video images with outstanding quality at least 4 different images can be stored and printed on one sheet. 3-Memories of at least 4 frame. Should be compatible with any monitor and should be supplied with all connecting cables, satisfying international quality controls, safety norms and power supply Should preferably have facility for upgradation and should be compatible with lower models		
3.3	Xenon light source 1-300 watts xenon bulb minimum 500 hrs. with at least one spare bulb of 300 watts 2- Fully automatic with light intensity continuously adjustable from 0-100% automatically by the cameras video output signal 3- Should have display of lamp service life. 4- Stand by mode 5- Monitoring of lamp function. 6- Built in antifog air pump. 7- Universal jaw assembly to adapt cable of any make. 8- Light wt. <10 kg.>9-Certified for international /national safety standard norms+power supply 10- Power supply 220-240 VAC 50/60 Hz. 11- Should be quoted along with spare lamp 12. Fibreoptic light cable 4.8mm in diameter and 230 -300cms in length compatible with cold light source and commonly available telescopes (Necessary adaptors may be provided).		
3.4	Electrocautery: 1• Should have unipolar cutting and coagulation as well as bipolar cutting and coagulation modes and have the facility of blending cutting and coagulation in different ratios and degree –soft, standard and/ or forced coagulation and spray coagulation. 2• Arc controlled cutting with a pre selectable power of maximum of 200 watts in both unipolar and bipolar modes. 3• Arc controlled coagulation with a pre selectable power of maximum of 120 watts in both unipolar and bipolar modes.		

	4• Auto stop function with automatic power – off on completion of coagulation process. 5• Automatic start function for bi- polar coagulation. Should be operable both in hand and foot mode and should have hand control switch on the handle of the electrode. Bipolar application with irrigation with sodium chloride. 6• Endoscopy mode with reduced voltage out put for use with fine endoscopic electrodes.(microfunction) 7• It should have automatic read out panel to display current being used and actual output at distal tip of electrode, simple operation due to clearly arranged control with easy to read symbols. 8• Should be compatible with under water operative procedures 9• It should have neural electrode monitoring through a patient contact system. 10• It should have automatic high frequency power cut off by autocoagulation stop and autostart facility 11• The unit should have the facility of self testing for trouble shooting. 12• Visual and acoustic signs of HF activation by different colored indicators and different acoustic tones for cutting and coagulating. 13• Unit should have safety monitoring circuit in event of malfunction for output monitoring. Neutral electrode connection . Automatic self test and automatic power cutoff in event of malfunction. Ground leakage current(LF/HF) HF application time. 14. Power supply 230VAC, 50/60 Hz. 15• The unit should be supplied with all standard accessories such as Electrode,Foot switch, Twin earth pad , bipolar forceps with Cord, Electrode Handle with switches , neutral plate, ball electrodes, Loop electrodes, variable output power for all types of currents.		

4 System Configuration Accessories, spares and consumables

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
4.1	All consumables required for installation and standardization of system to be given free of cost.		

5 Environmental factors

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
5.1	Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility,or should		

	comply with 89/366/EEC; EMC-directive.		
5.2	The unit shall be capable of operating continuously in ambient temperature of 20-30 deg C and relative humidity of 15-90%		
5.3	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%		

6 Power Supply

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
6.2	UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.		

7 Standards, Safety and Training

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
7.1	Should be FDA/ CE or BIS approved product		
7.2	Manufacturer should have ISO certification for quality standards.		
7.3	Comprehensive training for lab staff and support services till familiarity with the system.		
7.4	Shall be certified to be meeting safety standard IEC 60601-2-18 part 2 Particular requirements for the safety of endoscopic equipment.		

8 Documentation

Sl	Name	Technical Specs quoted by bidder	Bidders Deviation if any
8.1	User/Technical/Maintenance manuals to be supplied in English.		
8.2	List of important spare parts and accessories with their part number and costing.		
8.3	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point ,if not substantiated with		

	authenticated catalogue/manual, will not be considered.		
8.4	Certificate of calibration and inspection.		
8.5	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.		
8.6	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		

i. **Suitable trolley for the system.**

Schedule No. 83

Conventional surgical operating microscope

Sl no	Technical specifications
1	Motorised zoom magnification 6:1 ratio
2	Magnification from 1.8x to 15.8x or more with 10x eyepiece
3	Variable working distance from 207mm (+/-25mm) to 470mm (+/- 25mm) through motorised multi focal lens
4	Pair of wide field eyepieces for selectable wearers 10x, dioptric setting +5D to -5D
5	Ergonomic handles with buttons for motorized control of focus and zoom both hand and foot
6	Facility for adjusting speed of the focusing motor to adapt for different magnifications
7	300W Xenon illumination and 12V/150W same independent xenon back up lamp through fiber optic cable
8	Inclinable binocular tube, inclinable over range of minimum 0-180 deg
9	Facility for spot illumination
10	Floor stand with electromagnetic brakes with freedom of movement in all 6 axis
11	Floor stand should have adjustable carrying capacity, not less than 13 kgs

Schedule No. 84

Operating Microscope with Video attachment

Main Microscope binoculars: Two
5 deg variable inclination adjustable from 45 to 90 deg
Magnification change: Continuous motorized zoom system
Objective lens F= 200mm
Eye pieces: 12.5 X
Total magnification: 4.2X to 21.0X

Illumination unit

Illumination method: Coaxial illumination by light guide
Light source: Halogen bulb/LED
Illumination field diameter: 54 mm
Filters: Heat- absorbing, UV and blue cut filters

X-Y coupling Unit

Touch Panel LCD Monitor: Touch screen LCD monitor

Compact TV Relay Lens: To connect CCD cameras with a C- mount without blocking or interfering with the Assistant's microscope movement.

Coaxial Binocular Observation Tube: The coaxial binocular tube providing the same view as the surgeon. Easy to position and simple to adjust, the observation height should be identical to the surgeon.

CCD camera and Image recording: Latest 3 chip CCD camera with necessary adaptors with Video capturing, and recording device, 40 Inches LCD monitor.

BIOM unit: For Posterior segment surgery

Stand Arm section

Type: floor stand type

For Assistant

Rotating Assistant Microscope

Should be CE certified/US-FDA approved.

Schedule No. 85

Operating microscope complete unit for surgery and teaching

Technical specifications

1 Motorised zoom magnification 6:1 ratio
2 Magnification from 1.8x to 15.8x or more with 10x eyepiece
3 Variable working distance from 207mm (+/-25mm) to 470mm (+/- 25mm) through motorised multi focal lens
4 Pair of wide field eyepieces for selectable wearers 10x, dioptric setting +5D to -5D
5 Ergonomic handles with buttons for motorized control of focus and zoom both hand and foot
6 Facility for adjusting speed of the focusing motor to adapt for different magnifications
7 300W Xenon illumination and 12V/150W same independent xenon back up lamp through fiber optic cable
8 Inclinable binocular tube, inclinable over range of minimum 0-180 deg
9 Facility for spot illumination
10 Floor stand with electromagnetic brakes with freedom of movement in all 6 axis
11 Floor stand should have adjustable carrying capacity, not less than 13 kgs
12 System should be up gradable for neuronavigation & fluorescence
13 Tool tracking facility
14 It should have a graphic display LCD with background illumination with at least 6 user defined settings
15 It should stabilize less than 3 sec. & should rebooted less than 1 min
16 Camera should be independent of microscope
17 There should be a facility of a manual balance
18 There should be a facility of binocular teaching attachment with LCD monitor and recording facility

Essential accessories: (Price to be offered Separately)

1 Stereoscopic co-observation attachment for second observer with tiltable eyepieces, minimum 0-160 deg
2 Integrated beam splitter
3 Integrated 3- chip CCD camera with c- mount for connection with the microscope
4 Integrated digital video recording facility with appropriate video editing software

Schedule No. 86

Functional endoscopic sinus surgery for advanced surgery of para- nasal sinus disorders

Specifications:

Unit price of all item to be offered separately

Name of the instrument

1 Nasal telescope 4.0, 18cm, wide angled ,0 deg
2 Nasal telescope 4.0, 18cm, wide angled,30 deg
3 Nasal telescope 4.0, 18cm, wide angled, 70 /45deg
4 Nasal telescope 4.0, 18cm, wide angled, 45 deg
5 Trocar & sleeve 5.0mm for use with 4.0 mm telescope
6 Telescope handle for use with various telescopes, 0 to 70 deg
7 Suction tube for maxillary sinus
8 Nasal scissors straight for endoscopic sinus surgery
9 Nasal scissors angled right & angled left for endoscopic sinus surgery
10 Sickle knife pointed and round
11 Punch forceps for maxillary sinus 60 deg & 90 deg (upwards)
12 Punch forceps for maxillary sinus straight cutting
13 Punch forceps for maxillary sinus retrograde cutting
14 Ethmoidal forceps, 45 deg, upward size 2
15 Ethmoidal forceps, straight, size1&2
16 Ethmoidal forceps, upward cutting, 90 deg size 2
17 Double spoon forceps 70 deg upwards- horizontal opening
18 Double spoon forceps 110 deg upwards- vertical opening
19 Double spoon forceps 110 deg upwards- horizontal opening
20 Exchangeable sheath for each telescope, 18cm, for seven
21 Ostium punch retrograde forceps
22 Bipolar high frequency generator (220-240V) , 50-60 Hz
23 High frequency cable for generator above
24 Biopsy forceps for nasopharynx
25 Colour monitor, 52cm (high resolution)
26 Remote control for monitor
27 Still camera with focal length lenses
28 Standard R wo lenses for still camera
29 Continuer focussing lens, f-105mm
30 Irrigation and aspiration tube
31 Digital 3 chip endoscopic camera with integrated image processing module (beam splitter)
32 Xenon light source (220-240 volts/50 to 60 Hz) with T.T.L computer flash unit & double outlet
33 Circular punch for sphenoid sinus (straight & angled)
34 Fiberoptic cable for use with light source (cold)- 3.5mm & 4.0mm diameter) 189cms long

Schedule No. 87

OCT Machine

Specification:

Note : The bidders may offer In place of fundus Camera the OCT live funds Technology using live scanning Ophthalmoscope to view the Fundus. If the bidder have offer OCT live funds Technology than all points relate to Fundus camera may be treated as deleted.

Field Angle: 45°
Working Distance: 40.7mm
Pupil Diameter: ≥ 3.3 mm for Fundus image
Scanning Range: 8.2 x 3.0 mm, 6.0 x 6.0 mm, 4.5 x 4.5 mm or 3.0 x 3.0 mm
A Scan speed: 27,000 A Scans/sec.
Scan Depth: 2.3mm
Horizontal Resolution: 20µm
Longitudinal Resolution: 5-6µm
Fundus Observation :Near IR
Fundus Camera: 12.0 MP or above
Fixation: Adjustable internal matrix LCD and external fixation
device
Diopter Scale Range : -13D to +12D (in fundus photography)
Light Source : Super luminescence diode (SLD)
Wavelength : 840nm
Half Bandwidth : 50nm
Output on cornea : ≤ 0.65 mW
Automatic OCT Reference Focus : Vitreous and Choroid
Scan Pattern: 3D, Cross*, Raster*, Line*, Radial*, Circle*
(*available with oversampling, overlapping)
Power Supply : Source voltage: AC 100/110/120/220/230/240V 50-60Hz
: Power input: 200VA (normal), 400VA (max)
Dimensions : 21.5” (W) x 21” (D) x 23.5” - 25” (H)
Weight 70 lbs
Retinal Layers Identified: Macula: ILM, IS/OS, RPE, Bruch’s Membrane
Glaucoma: RNFL

Easy Image Capturing

Auto focus
Auto z-off-set
Auto polarization
Auto fundus capture
Auto small pupil

PC Specifications

Compatible PC
Memory 4GB or higher
Hard Disc 500 GB or higher
Display SXGA 1280 x 1024 32-bit color
Graphics Board VRAM 256MB or higher
Integrated, high resolution (12.0MP or above) camera for capturing fundus images

FastMap software enables dynamic viewing of 2D, 3D and fundus images simultaneously
Embedded touch-screen for quick and easy navigation
Automated image acquisition process (auto-focus, auto-shoot)
Data from OCT can be easily imported, analyzed and viewed
Seamless integration with Image Management System
2 in 1 system is space-saving and economical
Combined diagnosis with PinPoint registration of the OCT image within the fundus image
Compare function allows for serial monitoring of OCT
The product should be CE certified/USA FDA approved

GENERAL TECHNICAL SPECIFICATIONS

GENERAL POINTS:

1. Warranty:

   a) Two years Comprehensive Warranty as per Conditions of Contract of the TE document(Except for Biplane DSA) for complete equipment (including X ray tubes, Helium for MRI, Batteries for UPS, other vacuumatic parts wherever applicable) and Turnkey Work from the date of satisfactory installation, commissioning, trial run & handing over of equipment to Hospital/Institution/Medical College.
   b) 98% up time Warranty of complete equipment with extension of Warranty period by double the downtime period on 24 (hrs) X 7 (days) X 365 (days) basis.
   c) All software updates should be provided free of cost during Warranty period.

2. After Sales Service:

   After sales service centre should be available at the city of Hospital/Institution/Medical College on 24 (hrs) X 7 (days) X 365 (days) basis. Complaints should be attended properly, maximum within 8 hrs. The service should be provided directly by Tenderer/Indian Agent. Undertaking by the Principals that the spares for the equipment shall be available for at least 10 years from the date of supply.

3. Training:

   On Site training to Doctors/ Technicians/ staff is to be provided by Principal/ Indian Agents (if they have the requisite know-how) for operation and maintenance of the equipment to the satisfaction of the consignee.

4. Annual Comprehensive Maintenance Contract (CMC) of subject equipment with Turnkey:

   a) The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual of the manufacturer, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 (five) years and additional 3 (three) years (as per GIT clause 34.1 & GCC clause 15.2) on yearly basis for complete equipment (including X ray tubes, Helium for MRI, Batteries for UPS, other vacuumatic parts wherever applicable) and Turnkey (if any). The supplier shall visit each consignee site as recommended in the manufacturer's technical/ service /operational manual, but at least once in six months during the CMC period
   b) The cost of CMC may be quoted along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
   c) Cost of CMC will be added for Ranking/Evaluation purpose as indicated in GIT clause 34.1 & GCC clause 15.2.
   d) The payment of CMC will be made on six monthly basis after satisfactory completion of said period, duly certified by end user on receipt of bank guarantee for 2.5 % of the cost of the equipment as per Section XV valid till 2 months after expiry of entire CMC period.
   e) There will be 98% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.

f) During CMC period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.
g) All software updates should be provided free of cost during CMC.
h) Failure of the above [4. e) to 4. g)] by the supplier, may lead to the forfeiture of the Bank Guarantee for Annual CMC.
i) The payment of CMC will be made as stipulated in GCC Clause 21.

Turnkey:

Turnkey is indicated in the technical specification of the respective items, wherever required. The Tenderer shall examine the existing site where the equipment is to be installed, in consultation with HOD of Hospital/Institution/Medical College concerned. Turnkey details of each Hospital/Institution/Medical College are given at the end of Technical Specification. The Tenderer to quote prices indicating break-up of prices of the Machine and Turnkey Job of each Hospital/Institution/Medical College. The Turnkey costs may be quoted in Indian Rupee will be added for Ranking Purpose.

The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

The Turnkey Work should completely comply with AERB requirement, if any.

Note 1: Tenderer's attention is drawn to GIT clause 18 and GIT sub-clause 11.1(c). The tenderer is to provide the required details, information, confirmations, etc. accordingly failing which it's tender is liable to be ignored.

Note 2: General: Bidders are requested to make sure that they should attach the list of equipments for carrying out routine and preventive maintenance wherever asked for and should make sure that Electrical Safety Analyzer / Tester for Medical equipments to periodically check the electrical safety aspects as per BIS Safety Standards IS-13540 which is also equivalent to IEC electrical safety standard IEC-60601 is a part of the equipments. If the Electrical Safety Analyzer/Tester is not available they should provide a commitment to get the equipments checked for electrical safety compliance with Electronic Regional Test Labs / Electronics Test and Development Centres across the country on every preventive maintenance call.

Note 3: OPTIONAL ITEMS: Bidders are requested to quote for all the available options as asked in the bidding document with reasonable pricing. However the pricing for optional items will not be considered for price comparison for ranking purpose. If the firm has not quoted for any optional item (except the items of turnkey) their offer will be treated as TECHNICALLY RESPONSIVE if otherwise meeting the specification.

Section – VIII
Quality Control Requirements

(Proforma for equipment and quality control employed by the manufacturer(s)

Tender Reference No.

Date of opening

Time

Name and address of the Tenderer:

Note: All the following details shall relate to the manufacturer(s) for the goods quoted for.

01 Name of the manufacturer
- a. full postal address
- b. full address of the premises
- c. telegraphic address
- d. telex number
- e. telephone number
- f. fax number

02 Plant and machinery details

03 Manufacturing process details

04 Monthly (single shift) production capacity of goods quoted for
- a. normal
- b. maximum

05 Total annual turn-over (value in Rupees)

06 Quality control arrangement details
- a. for incoming materials and bought-out components
- b. for process control
- c. for final product evaluation

07 Test certificate held
- a . type test
- b . BIS/ISO certification
- c . any other

08 Details of staff
- a. technical
- b skilled
- c unskilled

Signature and seal of the Tenderer

Section – IX
Qualification Criteria

01. The Tenderer must be a Manufacturer or its authorized Agent.

02. (a) The Manufacturer should have supplied and installed in last **Five** years from the date of Tender Opening, atleast 100% of the quoted quantity of the similar equipment meeting major specification parameters which is functoning satisfactorily. The foreign Manufacturer satisfying the above criteria should also have supplied and installed in last **Five** years from the date of Tender Opening, at least 50% of quoted quantity of similar model which is functoning satisfactorily any where outside the country of manufacture.

02. (b) The Tenderers quoting as authorized representative of the manufacturer meeting the above criteria 02 (a) should have supplied and installed in last **Five** years from the date of Tender Opening, atleast 50% of the quoted quantity of similar equipments which is functoning satisfactorily, any where in India of any manufacturer.

Note

1. In support of 2 (a) & 2 (b), the Tenderer shall furnish Performance statement in the enclosed Proforma 'A'.

   The manufacturer as well as the Tenderer/ Indian Agent shall furnish Satisfactory Performance Certificate in respect of above, duly translated in English and duly notarized in the country of origin, alongwith the tender.

2. The Tenderer shall furnish a brief write-up, packed with adequate data explaining and establishing his available capacity/capability (both technical and financial) to perform the Contract (if awarded) within the stipulated time period, after meeting all its current/present commitments. The Tenderer shall also furnish details of Equipment and Quality Control in the enclosed Section VIII.

3. Notwithstanding anything stated above, the Purchaser reserves the right to assess the Tenderer's capability and capacity to perform the contract satisfactorily before deciding on award of Contract, should circumstances warrant such an assessment in the overall interest of the Purchaser.

4. The Purchaser reserves the right to ask for a free demonstration of the quoted equipment at a pre determined place acceptable to the purchaser for technical acceptability as per the tender specifications, before the opening of the Price Tender.

PROFORMA 'A'

PROFORMA FOR PERFORMANCE STATEMENT

(For the period of last five years)

Tender Reference No. : _____

Date of opening : _____

Time : _____

Name and address of the Tenderer : _____

Name and address of the manufacturer : _____

Order placed by (full address of Purchaser/ Consignee)	Order number and date	Description and quantity of ordered goods and services	Value of order (Rs.)	Date of completion of Contract		Remarks indicating reasons for delay if any	Have the goods been functioning Satisfactorily (attach documentary proof)**
				As per contract	Actual		
1	2	3	4	5	6	7	8

Signature and seal of the Tenderer

** The documentary proof will be a certificate from the consignee/end user with cross-reference of order no. and date in the certificate along with a notarized certification authenticating the correctness of the information furnished. If at any time, information furnished is proved to be false or incorrect, the earnest money furnished will be forfeited

Scan copy of order, performance certificate issued by the end user to be uploaded while submitting tender in e mode along with performance statement.

Section – X
TENDER FORM

Date_____

To

Head (P&CD),

HLL Lifecare Limited, Procurement and Consultancy Division,

B-14 A, Sector -62, Noida -201307, Uttar Pradesh

Ref. Your TE document No. _____dated _____

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. _____, dated _____ (*if any*), the receipt of which is hereby confirmed. We now offer to supply and deliver_____ *(Description of goods and services)* in conformity with your above referred document for the sum of _____ (total tender amount in figures and words), as shown in the price schedule(s), attached herewith and made part of this tender.

If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements.

We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 5, read with modification, if any, in Section - V – "Special Conditions of Contract", for due performance of the contract.

We agree to keep our tender valid for acceptance as required in the GIT clause 20, read with modification, if any in Section - III – "Special Instructions to Tenderers" or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period.

We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.

We confirm that we do not stand deregistered/banned/blacklisted by any Govt. Authorities.

We confirm that we fully agree to the terms and conditions specified in above mentioned TE document, including amendment/ corrigendum if any

(Signature with date)

(Name and designation) Duly authorised to sign tender for and on behalf of

SECTION – XI PRICE SCHEDULE

A) PRICE SCHEDULE FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED WITHIN INDIA

1	2	3	4	5							6
Schedule	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Rs.)							Total Price (at Consignee Site) basis (Rs.)
				Ex - factory/ Ex -warehouse /Ex-showroom /Off - the shelf (a)	Excise Duty (if any) [%age & value] (b)	Sales Tax/ VAT(if any) [%age & value] (c)	Packing and Forwarding charges (d)	Inland Transportation, Insurance for a period including 3 months beyond date of delivery, loading/ unloading and Incidental costs till consignee's site (e)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site (f)	Unit Price (at Consignee Site) basis (g) =a+b+c+d+e+f	4 x 5(g)

Total Tender price in Rupees: _____

In words:

_____

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted separately as per Section – XI – Price Schedule C

Name_____

Business Address_____

Place: _____ **Signature of Tenderer**_____

Date: _____ **Seal of the Tenderer**_____

NOTE:- AS PER PRICE FORMAT UPLOADED IN E -TENDER

B) PRICE SCHEDULE FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5					6
Schedule	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Currency)					Total price on CIP Named Port of Destination + Insurance (local transportation and storage) 4X 5 (e)
				FOB price at port/ airport of Lading (a)	Carriage & Insurance (port of loading to port of entry) and other Incidental costs** (b)	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site** (c)	Extended Insurance (local transportation and storage) from port of entry to the consignee site for a period including 3 months beyond date of delivery** (d)	Unit Price on CIP Named Port of Destination + Extended Insurance (local transportation and storage) (e) = a+b+c+d	

** To be paid in Indian Currency (Rs.)

Total Tender price in foreign currency: _____

In words:

_____

Note: -

1. If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.
2. The charges for Annual CMC after warranty shall be quoted separately as per Section – XI – Price Schedule C
3. The Tenderer will be fully responsible for the safe arrival of the goods at the named port of entry in good condition as per terms of CIP as per INCOTERMS, if applicable

Indian Agent:

Indian Agency Commission - ___% of FOB

Signature of Tenderer_____Name_____

Business Address_____

Place: _____

Signature of Tenderer_____

Date: _____

Seal of the Tenderer_____

NOTE:- AS PER PRICE FORMAT UPLOADED IN THE E -TENDER

C) PRICE SCHEDULE FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT AFTER WARRANTY PERIOD

1	2	3	4					5
Schedule No.	BRIEF DESCRIPTION OF GOODS	QUANTITY. (Nos.)	Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*.					Total Annual Comprehensive Maintenance Contract Cost for 5 Years [3 x (4a+4b+4c+4d+4e)]
			1st	2nd	3rd	4th	5th	
			a	B	c	d	e	

*** After completion of Warranty period**

NOTE:-

1. In case of discrepancy between unit price and total prices, THE UNIT PRICE shall prevail.
2. The cost of Comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration as per technical/ service /operational manual, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years on yearly basis for complete equipment and Turnkey (if any).
3. The cost of CMC may be quoted along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
4. Cost of CMC will be added for Ranking/Evaluation purpose.
5. The payment of CMC will be made as per clause GCC clause 21.1 (D).
6. The uptime warranty will be 98 % on 24 (hrs) X 7 (days) X 365 (days) basis or as stated in Technical Specification of the TE document.
7. All software updates should be provided free of cost during CMC period.
8. The stipulations in Technical Specification will supersede above provisions
9. The supplier shall keep sufficient stock of spares required during Annual Comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.
10. **Separate similar to this sheet should be used for quoting 3 (three) years additional CMC cost as indicated in GIT clause 34.1, GCC clause 15.2 & General Technical Specification.**

Name_____

Business Address_____

Place: _____ Signature of Tenderer_____

Date: _____ Seal of the Tenderer_____

NOTE:- AS PER PRICE FORMAT UPLOADED IN THE E- TENDER

D) PRICE SCHEDULE FOR TURNKEY

Schedule No.	BRIEF TURNKEY DESCRIPTION OF GOODS	CONSIGNEE CODE	Turnkey price

Note: -

1. The cost of Turnkey as per Technical Specification (Section VII) may be quoted on lump sum along with taxes applicable on the date of Tender Opening. The taxes to be paid extra, to be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.
2. Cost of Turnkey will be added for Ranking/Evaluation purpose.
3. The payment of Turnkey will be made as per clause GCC clause 21.1 (c).
4. The stipulations in Technical Specification will supersede above provisions

Name_____

Business Address_____

Place: _____ **Signature of Tenderer**_____

Date: _____ **Seal of the Tenderer**_____

NOTE:- AS PER PRICE FORMAT UPLOADED IN THE E- TENDER

SECTION – XII

QUESTIONNAIRE

Fill up the Section XX – Check List for Tenderers and enclose with the Tender

1. The tenderer should furnish specific answers to all the questions/issues mentioned in the Checklist. In case a question/issue does not apply to a tenderer, the same should be answered with the remark “not applicable”.

2. Wherever necessary and applicable, the tenderer shall enclose certified copy as documentary proof/ evidence to substantiate the corresponding statement.

3. In case a tenderer furnishes a wrong or evasive answer against any of the question/issues mentioned in the Checklist, its tender will be liable to be ignored.

SECTION – XIII
BANK GUARANTEE FORM FOR EMD

Whereas _____ (hereinafter called the "Tenderer") has submitted its quotation dated _____ for the supply of _____ (hereinafter called the "tender") against the purchaser's tender enquiry No. _____ Know all persons by these presents that we _____ of _____ (Hereinafter called the "Bank") having our registered office at _____ are bound unto _____ (hereinafter called the "Purchaser) in the sum of _____ for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 20____. The conditions of this obligation are:

(1) If the Tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.

(2) If the Tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-

a) fails or refuses to furnish the performance security for the due performance of the contract.

or

b) fails or refuses to accept/execute the contract.

or

c) if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition(s).

This guarantee will remain in force for a period of forty-five days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the authorised officer of the Bank)

Name and designation of the officer

Seal, name & address of the Bank and address of the Branch

SECTION – XIV
MANUFACTURER'S AUTHORISATION FORM

To

Head (P&CD),

HLL Lifecare Limited, Procurement and Consultancy Division,

B-14 A, Sector -62, Noida -201307, Uttar Pradesh

Dear Sirs,

Ref. Your TE document No _____, dated _____

We, _____ who are proven and reputable manufacturers of_____(*name and description of the goods offered in the tender*) having factories at_____, hereby authorise Messrs_____(*name and address of the agent*) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We further confirm that no supplier or firm or individual other than Messrs. _____ (*name and address of the above agent*) is authorised to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also hereby extend our full warranty, CMC as applicable as per clause 15 of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the above firm against this TE document.

Yours faithfully,

[*Signature with date, name and designation*]

for and on behalf of Messrs_____

[*Name & address of the manufacturers*]

Note: 1. This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.

2. Original letter may be sent.

SECTION – XV

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY/ CMC SECURITY

To
HLL Lifecare Ltd.

WHEREAS _____ (Name and address of the supplier) (Hereinafter called "the supplier") has undertaken, in pursuance of contract no_____ dated _____ to supply (description of goods and services) (herein after called "the contract").

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish you with a bank guarantee by a scheduled commercial bank recognised by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of. _____ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the supplier shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid up to 30 (thirty) months from the date of Notification of Award i.e. up to ---------- (indicate date)

…….

(Signature with date of the authorised officer of the Bank)

……

Name and designation of the officer

……

……

Seal, name & address of the Bank and address of the Branch

SECTION – XVI
CONTRACT FORM - A

CONTRACT FORM FOR SUPPLY, INSTALLATION, COMMISSIONING, HANDING OVER, TRIAL RUN, TRAINING OF OPERATORS & WARRANTY OF GOODS

(Address of the Purchaser's/Consignee's
office issuing the contract)

Contract No_____ dated_____

This is in continuation to this office's Notification of Award No_____ dated _____

1. Name & address of the Supplier: _____
2. Purchaser's TE document No_____ dated_____ and subsequent Amendment No_____, dated_____ (if any), issued by the purchaser
3. Supplier's Tender No_____ dated_____ and subsequent communication(s) No_____ dated _____ (if any), exchanged between the supplier and the purchaser in connection with this tender.
4. In addition to this Contract Form, the following documents etc, which are included in the documents mentioned under paragraphs 2 and 3 above, shall also be deemed to form and be read and construed as integral part of this contract:

   (i) General Conditions of Contract;
   (ii) Special Conditions of Contract;
   (iii) List of Requirements;
   (iv) Technical Specifications;
   (v) Quality Control Requirements;
   (vi) Tender Form furnished by the supplier;
   (vii) Price Schedule(s) furnished by the supplier in its tender;
   (viii) Manufacturers' Authorisation Form (if applicable for this tender);
   (ix) Purchaser's Notification of Award

   Note: The words and expressions used in this contract shall have the same meanings as are respectively assigned to them in the conditions of contract referred to above. Further, the definitions and abbreviations incorporated under clause 1 of Section II – 'General Instructions to Tenderers' of the Purchaser's TE document shall also apply to this contract.
5. Some terms, conditions, stipulations etc. out of the above-referred documents are reproduced below for ready reference:
   (i) Brief particulars of the goods and services which shall be supplied/ provided by the supplier are as under:

Schedule No.	Brief description of goods/services	Accounting unit	Quantity to be supplied	Unit Price	Total price	Terms of delivery

Any other additional services (if applicable) and cost thereof: _____
Total value (in figure) _____ (In words) _____

2. Delivery schedule

(iii) Details of Performance Security

(iv) Quality Control

(a) Mode(s), stage(s) and place(s) of conducting inspections and tests.

(b) Designation and address of purchaser's inspecting officer

(v) Destination and despatch instructions

(vi) Consignee, including port consignee, if any

3. Warranty clause
4. Payment terms
5. Paying authority

_____

(Signature, name and address
of the Purchaser's/Consignee's authorised official)
For and on behalf of_____

Received and accepted this contract

(Signature, name and address of the supplier's executive
duly authorised to sign on behalf of the supplier)
For and on behalf of _____
(Name and address of the supplier)

(Seal of the supplier)
Date: _____

Place: _____

CONTRACT FORM – B

CONTRACT FORM FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT

Annual CM Contract No._____ dated_____
Between

(Address of Head of Hospital/Institute/Medical College)
And

(Name & Address of the Supplier)

Ref: Contract No_____ dated_____ (Contract No. & date of Contract for supply, installation, commissioning, handing over, Trial run, Training of operators & warranty of goods)

In continuation to the above referred contract

6. The Contract of Annual Comprehensive Maintenance is hereby concluded as under: -

1	2	3	4					5
Schedule No.	**BRIEF DESCRIPTION OF GOODS**	**QUANTITY. (Nos.)**	**Annual Comprehensive Maintenance Contract Cost for Each Unit year wise*.**					**Total Annual Comprehensive Maintenance Contract Cost for 5 Years [3 x (4a+4b+4c+4d+4e)]**
			1st	**2nd**	**3rd**	**4th**	**5th**	
			a	**b**	**c**	**d**	**e**	

Total value (in figure) _____ (In words) _____

b) The CMC commence from the date of expiry of all obligations under Warranty i.e. from_____ (date of expiry of Warranty) and will expire on _____ (date of expiry of CMC)

c) The cost of Annual Comprehensive Maintenance Contract (CMC) which includes preventive maintenance, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 years as contained in the above referred contract on yearly basis for complete equipment (including X ray tubes, Helium for MRI, Batteries for UPS, other vacuumatic parts, _____ & _____) and Turnkey (if any).

d) There will be 98% uptime warranty during CMC period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend CMC period by double the downtime period.

e) During CMC period, the supplier shall visit at each consignee's site for preventive maintenance including testing and calibration as per the manufacturer's service/ technical/ operational manual. The supplier shall visit each consignee site as recommended in the manufacturer's manual, but at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.

f) All software updates should be provided free of cost during CMC.

g) The bank guarantee valid till _____ [(fill the date) 2 months after expiry of entire CMC period] for an amount of Rs. _____ [(fill amount) equivalent to 2.5 % of the cost of the equipment as per contract] shall be furnished in the prescribed format given in Section XV of the TE document, along with the signed copy of Annual CMC within a period of 21 (twenty one) days of issue of Annual CMC failing which the proceeds of Performance Security shall be payable to the Purchaser/Consignee.

h) If there is any lapse in the performance of the CMC as per contract, the proceeds Annual CMC bank guarantee for an amount of Rs. _____ (equivalent to 2.5 % of the cost of the equipment as per contract) shall be payable to the Consignee.

i) **Payment terms:** The payment of Annual CMC will be made against the bills raised to the consignee by the supplier on six monthly basis after satisfactory completion of said period, duly certified by the HOD concerned. The payment will be made in Indian Rupees.

j) **Paying authority:** _____ (name of the consignee i.e. Hospital/ Institute /Medical College's authorised official)

_____

(Signature, name and address of Hospital/Institute/Medical College's authorised official)

For and on behalf of_____

Received and accepted this contract

(Signature, name and address of the supplier's executive duly authorised to sign on behalf of the supplier)

For and on behalf of _____

(Name and address of the supplier)

(Seal of the supplier)

Date: _____

Place: _____

SECTION – XVII

CONSIGNEE RECEIPT CERTIFICATE
(To be given by consignee's authorized representative)

The following store (s) has/have been received in good condition:

1) Contract No. & date :_____

2) Supplier's Name :_____

3) Consignee's Name & Address with telephone No. & Fax No. : _____

4) Name of the item supplied :_____

5) Quantity Supplied :_____

6) Date of Receipt by the Consignee :_____

7) Name and designation of Authorized Representative of Consignee :_____

8) Signature of Authorized Representative of Consignee with date :_____

9) Seal of the Consignee :_____

SECTION – XVIII

Proforma of Final Acceptance Certificate by the Consignee

No_____
Date_____

To

M/s _____
_____
_____

Subject: Certificate of commissioning of equipment/plant.

This is to certify that the equipment(s)/plant(s) as detailed below has/have been received in good conditions along with all the standard and special accessories and a set of spares (subject to remarks in Para no.02) in accordance with the contract/technical specifications. The same has been installed and commissioned.

(a) Contract No_____ dated_____

(b) Description of the equipment(s)/plants: _____

(c) Equipment(s)/ plant(s) nos.:_____

(d) Quantity: _____

(e) Bill of Loading/Air Way Bill/Railway Receipt/ Goods Consignment Note no_____ dated _____

(f) Name of the vessel/Transporters:_____

(g) Name of the Consignee:_____

(h) Date of commissioning and proving test:_____

Details of accessories/spares not yet supplied and recoveries to be made on that account.

Sl. No.	Description of Item	Quantity	Amount to be recovered No.

The proving test has been done to our entire satisfaction and operators have been trained to operate the equipment(s)/plant(s).

The supplier has fulfilled its contractual obligations satisfactorily ## or

The supplier has failed to fulfil its contractual obligations with regard to the following:

He has not adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specifications'.
He has not supervised the commissioning of the equipment(s)/plant(s)in time, i.e. within the period specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).
The supplier as specified in the contract has not done training of personnel.

The extent of delay for each of the activities to be performed by the supplier in terms of the contract is
The amount of recovery on account of non-supply of accessories and spares is given under Para no.02.
The amount of recovery on account of failure of the supplier to meet his contractual obligations is_____ (here indicate the amount).
Signature
Name
Designation with stamp

Explanatory notes for filling up the certificate:

He has adhered to the time schedule specified in the contract in dispatching the documents/drawings pursuant to 'Technical Specification'.

He has supervised the commissioning of the equipment(s)/plant(s) in time, i.e. within the time specified in the contract from date of intimation by the Purchaser/Consignee in respect of the installation of the equipment(s)/plant(s).

Training of personnel has been done by the supplier as specified in the contract

In the event of documents/drawings having not been supplied or installation and commissioning of the equipment(s)/plant(s) having been delayed on account of the supplier, the extent of delay should always be mentioned in clear terms.

SECTION – XIX
ANNEXURES

Annexure 1

DETAILS OF SHIPPING ARRANGEMENT FOR LINER CARGOES IN RESPECT OF C & F/CIF/TURNKEY/F.O.R CONTRACTS FOR IMPORTS

1. (a) SHIPMENT FROM PORTS OF U.K INCLUDING NORTHERN IRELAND (ALSO EIRE), FROM THE NORTH CONTINENT OF EUROPE (GERMANY, HOLLAND, BELGIUM, FRANCE, NORWAY, SWEDEN, DENMARK, FINLAND AND PORTS ON THE CONTINENTAL SEABOARD OF MEDITERRANIAN (I.E. FRENCH WESTERN ITALIAN PORTS), TO PORTS IN INDIA.

The Seller should arrange shipment of the goods by vessels belonging to the member lines of the India-Pakistan-Bangladesh Conference. If the Seller finds that the space on the 'Conference Lines' vessels is not available for any specific shipment, he should take up with India-Pakistan-Bangladesh Conference. Conferity House, East Grinstead, Sussex (UK), for providing shipping space and also inform the Shipping Co-ordination Officer, Ministry of Surface Transport, New Delhi, (Cable: TRANSCHART, NEW DELHI, Telex: VAHAN IN – 031 – 61157, 61158, 61159)

The Seller should arrange shipment through the Government of India's Forwarding Agents, M/s Schenker & Co., 2000-Hamburg (Cable: SCHENKER CO., HAMBURG) OR obtain a certificate from them to the effect that shipment has been arranged in accordance with instructions of the Ministry of Surface Transport, (TRANSCHART), New Delhi.

(b) SHIPMENT FORM PORTS OF U.K. INCLUDING NORTHERN

Goods under this contract would be shipped by the national shipping companies of the Contracting Parties operating bilateral shipping service and vessels under the flag of third countries in accordance with the Agreement between the Government of German Democratic Republic and the Government of the Republic of India in the Field of Merchant Shipping signed on 9.1.1979, as amended up-to-date.

(c) SHIPMENT FROM ADRIATIC PORTS OF EASTERN ITALY AND YUGOSLAVIA

The seller should arrange shipment of the goods by vessels belonging to the following Indian member lines;

1. The Shipping Purchaser of India Ltd.
2. The Scindia Steam Navigation Co., Ltd
3. India Steamship Co., Ltd

For the purpose of ascertaining the availability of suitable Indian vessels and granting dispensation in the event of their non-availability, the Seller should give adequate notice about the readiness of each consignment from time to time at least six weeks in advance of the required position to M/s Schenker & Co. 2000 HAMBURG (Cable: SCHENKER CO., HAMBURG) and also endorse a copy thereof to the Shipping Co-ordination Officer, Ministry of Surface Transport, New Delhi, (Cable: TRANSCHART, NEW DELHI, Telex: VAHAN IN – 031 – 61157, 61158, 61159)

The seller should arrange shipment through the Government of India's Forwarding Agents M/s Schenker & Co. 2000 HAMBURG (Cable: SCHENKER CO., HAMBURG) or obtain certificate from them to the effect that shipment has been arranged in accordance with the instructions of the Ministry of Surface Transport, (TRANSCHART), New Delhi.

(d) SHIPMENT FROM POLAND & CZECHOSLOVAKIA

(i) IMPORTS FROM POLAND

Shipment under this contract would be made by the National flag lines of the two parties and vessels of the third flag conference lines, in accordance with the agreement between the Govt. of the Republic of India and the Govt. of the Polish People's Republic regarding Shipping Co-operation dated 27.6.1960 as amended up-to-date.

(ii) IMPORTS FROM CZECHOSLOVAKIA

Goods under this contract would be signed by the National flag lines of the two parties and vessels of the third flag conference lines, in accordance with the Agreement Co-operation in shipping between India and Czechoslovakia signed on 3.11.1978 and ratified on 19.12.1979, as amended up-to-date.
Shipping arrangement should be made by the Sellers in consultation with Resident Representative of the Indian Shipping Lines in Gdynia, Co., Morska Agencja W. Gdyniul, Pulaskiego 8, P.O. Box 246, Gdynia (Poland) – Telex : MG PL. 054301, Tel.: 207621, to whom details regarding contract number, nature of cargo , quantity, port of lading, discharging, name of Government consignee, expected date of readiness of each consignment etc. should be furnish at least six weeks in advance of the required position, with a copy thereof endorsed to the Shipping Co-ordination Officer, Ministry of Surface Transport, (Chartering Wing), New Delhi, (Cable: TRANSCHART, NEW DELHI, Telex: VAHAN IN – 031 – 61157, 61158, 61159)

(e) SHIPMENT FROM U.S.S.R

Shipment under this contract should be made in accordance with the agreement between the Government of the Republic of India and the Government of U.S.S.R on Merchant Shipping 1976, as amended up-to-date, by vessels of Indo-Soviet shipping Service.

(f) SHIPMENT FROM JAPAN

The shipment of goods should be made of India vessels to the maximum extent possible subject to the minimum of 50%.

The Seller should arrange shipment of the goods in consultation with the Embassy of India in Japan, Tokyo to whom details regarding contract number, nature of cargo, quantity, port of loading/discharge, name of Govt. consignee, expected date of readiness of each consignment etc. should be furnished at least six weeks in advance of the required position.

Note: The copies of such contracts are to be endorsed both to the Attached (commercial) embassy of India in Japan, Tokyo, and the shipping Co-ordination Officer, Ministry of Surface Transport, New Delhi.

(g) SHIPMENT FROM AUSTRALIA, ALGERIA, BULGARIA, ROMANIA, EGYPY

The Seller shall arrange shipment of the goods by Indian flag vessels to the maximum extent possible subject to a minimum of 50 %. For the purpose of ascertaining the availability of suitable Indian vessels, the seller shall give adequate notice of not less than six weeks about the readiness of each consignment to the Shipping Purchaser of India Ltd., SHIPPING HOUSE, 245, Madame Cama Road, Bombay – 400 021 (CABLE: SHIPINDIA BOMBAY) and also endorse a copy thereof to the Shipping Co-ordination Officer, Ministry of Surface Transport, New Delhi, (Cable: TRANSCHART, NEW DELHI, Telex: VAHAN IN – 031 – 61157, 61158, 61159)

(h) SHIPMENT FROM PAKISTAN

The shipment of cargoes should be made by Indian vessels to the maximum extent possible subject to a minimum of 50 %.

Shipment arrangement should be made by the sellers in consultation with M/s Mogul Line Ltd., 16-Bank Street, Fort, Bombay – 400023 (Cable: MOGUL BOMBAY: Telex: 011 – 4049 MOGUL), to whom, details regarding contract number, nature of cargo, quantity, port of lading discharging, name of government consignee, expected date of readiness of each consignment etc. should be furnish at least six weeks in advance of the required position, with a copy thereof endorsed to the Shipping Co-ordination Officer, Ministry of Surface Transport, New Delhi, (Cable: TRANSCHART, NEW DELHI, Telex: VAHAN IN – 031 – 61157, 61158, 61159)

(i) SHIPMENT FROM U.S ATLANTIC & GULF PORTS

The Seller should arrange shipment of the goods by vessels belonging to the member lines of the India – Pakistan – Bangladesh – Ceylon and Burma Outward Freight Conference. If the Seller finds that the space of the 'Conference Lines' vessels is not available for any specific shipment he should take up with India – Pakistan- Bangladesh – Ceylon and Burma Outward Freight Conference, 19, Rector Street, New York, N.Y. 10006 USA, for providing shipping space and also inform the Shipping Co-ordination Officer, Ministry of Surface Transport, New Delhi, (Cable: TRANSCHART, NEW DELHI, Telex: VAHAN IN – 031 – 61157, 61158, 61159)

(j) SHIPMENT FROM ST. LAWRENCE AN EASTERN CANADIAN PORTS

The Seller should arrange shipment of the goods by vessels belonging to the following shipping lines;

1. The shipping Purchaser of India Ltd.
2. The Scindia Steam Navigation Co., Ltd

If the Seller finds that the space in the vessels of these Lines is not available for any particular consignments, he should inform the Shipping Co-ordination Officer, Ministry of Surface Transport, New Delhi, (Cable: TRANSCHART, NEW DELHI, Telex: VAHAN IN – 031 – 61157, 61158, 61159) immediately so that dispensation from the shipping lines concerned to use alternative lifting may be sought.

(k) SHIPMENT FROM WEST COAST PORTS OF U.S.S CANADA AND OTHER AREAS NOT SPECIFICALLY MENTIONED ABOVE

The Seller should arrange shipment of the goods by Indian vessels to the maximum extent possible subject to a minimum of 50 %. For the purpose of ascertaining the availability of suitable Indian vessels and granting dispensation in the event of their non-availability, the Seller should furnish the details regarding contract number, nature of cargo, quantity, port of lading, discharging, name of government consignee, expected date of readiness of each consignment etc. to the Shipping Co-ordination Officer, Ministry of Surface Transport, New Delhi, (Cable: TRANSCHART, NEW DELHI, Telex: VAHAN IN – 031 – 61157, 61158, 61159) at least six weeks in advance of the required position.

2. BILLS OF LADING

(i) C.I.F./C&F/TURNKEY SHIPMENTS

The Bills of lading should be drawn to indicate Shipper and 'Consignee' as under:

SHIPPER: The C.I.F (C&F)/TURNKEY SUPPLIERS concerned.

CONSIGNEE: As per consignee's particulars in the contract (The name an address of the 'Port Consignee' and 'Ultimate' both should be indicated).

(ii) F.O.R SHIPMENTS

The Bills of lading should be drawn to indicate shipper Consignee as under:

SHIPPER: The F.O.R suppliers Concerned

CONSIGNEE: Supplier's Indian Agent on order

Note:

1. Moreover the name of the 'Purchaser' and 'Ultimate' Consignee should appear in the body of the Bills of Lading as the 'Notify' or as a remark.
2. Two non-negotiable copies of the Bills of Lading indicating the freight amount and discount, if any allowed, should be forwarded to The Shipping Co-ordination Officer, Ministry of surface Transport (Chartering Wing), New Delhi after the shipment of each consignment is effected.
3. The seller should avoid the use of over-aged vessels for the shipment of the goods under the contract and if so used the cost of additional. Insurance, if any, shall be borne by the seller.

SECTION – XX
CHECKLIST
Name of Tenderer:
Name of Manufacturer:

Sl No.	Activity	Yes/ No/ NA	Page No. in the TE document	Remarks
1. a.	Have you enclosed EMD of required amount for the quoted schedules?			
b.	In case EMD is furnished in the form of Bank Guarantee, has it been furnished as per Section XIII?			
c.	In case Bank Guarantee is furnished, have you kept its validity of 165 days from Techno Commercial Tender Opening date as per clause 19 of GIT?			
2. a.	Have you enclosed duly filled Tender Form as per format in Section X?			
b.	Have you enclosed Power of Attorney in favour of the signatory?			
3.	Are you a SSI unit, if yes have you enclosed certificate of registration issued by Directorate of Industries/NSIC			
4. a.	Have you enclosed clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications?			
b.	In case of Technical deviations in the compliance statement, have you identified and marked the deviations?			

Sl No.	Activity	Yes/ No/ NA	Page No. in the TE document	Remarks
5. a.	Have you submitted satisfactory performance certificate as per the Proforma for performance statement in Sec. IX of TE document in respect of all orders?			
b.	Have you submitted copy of the order(s) and end user certificate?			
6.	Have you submitted manufacturer's authorization as per Section XIV?			
7.	a) Have you submitted prices of goods, turnkey (if any), CMC etc. in the Price Schedule as per Section XI? b) Have you enclosed Manufacturer's Proforma Invoice in case the item is quoted in Foreign Currency?			
8.	Have you kept validity of 120 days from the Techno Commercial Tender Opening date as per the TE document?			
9. a.	In case of Indian Tenderer, have you furnished Income Tax Account No. as allotted by the Income Tax Department of Government of India?			
b.	In case of Foreign Tenderer, have you furnished Income Tax Account No. of your Indian Agent as allotted by the Income Tax Department of Government of India?			
10.	Have you intimated the name an full address of your Banker (s) along with your Account Number			
11.	Have you fully accepted payment terms as per TE document?			
12.	Have you fully accepted delivery period as per TE document?			

Sl No.	Activity	Yes/ No/ NA	Page No. in the TE document	Remarks
13.	Have you submitted the certificate of incorporation?			
14.	Have you accepted the warranty as per TE document?			
15.	Have you accepted terms and conditions of TE document?			
16.	Have you furnished documents establishing your eligibility & qualification criteria as per TE documents?			
17	Have you furnished Annual Report (Balance Sheet and Profit & Loss Account) for last three years prior to the date of Tender opening?			

N.B.

1. All pages of the Tender should be page numbered and indexed.
2. The Tenderer may go through the checklist and ensure that all the documents/confirmations listed above are enclosed in the tender and no column is left blank. If any column is not applicable, it may be filled up as NA.

2. It is the responsibility of tendered to go through the TE document to ensure furnishing all required documents in addition to above, if any.

(Signature with date)

(Full name, designation & address of the person duly authorised sign on behalf of the Tenderer)
For and on behalf of

(Name, address and stamp of the tendering firm)

Section – XXI
Consignee List

Consignee Code	Medical Institutions	Contact Address.	AirPort	Sea Port
AMC	Amritsar Medical College	Principal Govt Medical Collage Amritsar	Delhi	Mumbai/ Kolkatta

NB: The consignee will ensure timely issue of NMIC, CDEC, Octroi Exemption Certificates, Road Permits & Entry Tax Exemption Certificates, wherever applicable, to the suppliers.